Bibliography

[ADA 94] ADAMS R., BISCHOF L., "Seeded region growing", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 16, num. 6, p. 641-647, 1994.

[ALC 08] ALCOVERRO M., PHILIPP-FOLIGUET S., JORDAN M., NAJMAN L., COUSTY J., "Region-based 3D artwork indexing and classification", *Proceedings of the IEEE 3DTV-Con Conference*, May 2008.

[ALE 37] ALEXANDROFF P., "Diskrete Raüme", *Mat. Sb.*, vol. 2, p. 501-518, 1937.

[ALK 01] ALKEMPER J., VOORHEES P., "Three dimensional characterization of dendritic microstructures", *Acta materiala*, vol. 49, num. 5, p. 897-902, 2001.

[ALL 07] ALLÈNE C., AUDIBERT J.-Y., COUPRIE M., COUSTY J., KERIVEN R., "Some links between min-cuts, optimal spanning forests and watersheds", BANON G. J. F., BARRERA J., BRAGA-NETO U. D. M., HIRATA N. S. T., Eds., *proceedings of the 8th International Symposium on Mathematical Morphology*, vol. 1, p. 253–264, University of São Paulo (USP), Instituto Nacional de Pesquisas Espaciais (INPE), Rio de Janeiro, Brazil, October 2007.

[ALO 03] AL-OTUM H., "Morphological operators for color image processing based on Mahalanobis distance measure", *Optical Engineering*, vol. 42, num. 9, p. 2595-2606, 2003.

[ANG 03a] ANGULO J., Morphologie mathématique et indexation d'images couleur. Application à la microscopie en biomédecine, doctoral dissertation, École Nationale Supérieure des Mines de Paris, December 2003.

[ANG 03b] ANGULO J., SERRA J., "Color segmentation by ordered mergings", *Proc. of IEEE International Conference on Image Processing (ICIP'03)*, vol. 2, p. 125-128, IEEE, 2003.

[ANG 03c] ANGULO J., SERRA J., "Morphological coding of color images by vector connected filters", *Proc. of IEEE 7th International Symposium on Signal Processing and Its Applications (ISSPA'03)*, vol. I, p. 69-72, IEEE, 2003.

[ANG 06] ANGULO J., "Morphological colour image simplification by saturation-controlled regional levellings", *International Journal of Pattern Recognition and Artificial Intelligence*, vol. 20, num. 6, p. 1207-1223, 2006.

[ANG 07a] ANGULO J., "Morphological colour operators in totally ordered lattices based on distances: application to image filtering, enhancement and analysis", *Computer Vision and Image Understanding*, vol. 107, num. 2-3, p. 56-73, 2007.

[ANG 07b] ANGULO J., SERRA J., "Modelling and segmentation of colour images in polar representations", *Image and Vision Computing*, vol. 25, num. 4, p. 475-495, 2007.

[ANN 03] ANNONI A., LUZET C., GUBLER E., IHDE J., Eds., *Map Projections for Europe*, vol. EUR 20120 EN, European Commission, DG Joint Research Centre, 2003.

[ANN 05] ANNONI A., Ed., *European Reference Grids*, vol. EUR 21494 EN, European Commission, DG Joint Research Centre, 2005.

[APP 06] APPLETON B., TALBOT H., "Globally Minimal Surfaces by Continuous Maximal Flows", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 28, num. 1, p. 106-118, 2006.

[APT 07] APTOULA E., LEFÈVRE S., "A comparative study on multivariate morphology", *Pattern Recognition*, vol. 40, num. 11, p. 2914-2929, 2007.

[ARR 99] ARRIGHI P., SOILLE P., "From scanned topographic maps to digital elevation models", JONGMANS D., PIRARD E., TREFOIS P., Eds., *Proc. of Geovision'99: International Symposium on Imaging Applications in Geology*, p. 1-4, University of Liège, Belgium, May 1999.

[ASS 06] VAN ASSEN H., DANILOUCHKINE M. G., FRANGI A. F., ORDÀS S., WESTENBERG J. J. M., REIBER J. H. C., LELIEVELDT B. P. F., "SPASM: A 3D-ASM for segmentation of sparse and arbitrarily oriented cardiac MRI data", *Medical Image Analysis*, vol. 10, p. 286-303, 2006.

[AST 90] ASTOLA J., HAAVISTO P., NUEVO Y., "Vector Median Filters", *Proc. of the IEEE*, vol. 78, num. 4, p. 678-689, 1990.

[ATT 95] ATTALI D., SANNITI DI BAJA G., THIEL E., "Pruning discrete and semicontinuous skeletons", *Procs. Conf. Image Analysis and Processing*, vol. 974 of *Lecture Notes in Computer Science*, p. 488-493, Springer, 1995.

[ATT 96] ATTALI D., MONTANVERT A., "Modelling noise for a better simplification of skeletons", *Procs. International Conference on Image Processing*, vol. 3, p. 13-16, 1996.

[ATT 09] ATTALI D., BOISSONNAT J., EDELSBRUNNER H., "Stability and Computation of the medial axis – a State-of-the-Art Report", MÖLLER T., HAMANN B., RUSSELL B., Eds., *Mathematical Foundations of Scientific Visualization, Computer Graphics, and Massive Data Exploration*, p. 109–125, Springer-Verlag, 2009.

[AUD 07] AUDIGIER R., LOTUFO R., "Uniquely-Determined Thinning of the Tie-Zone Watershed Based on Label Frequency", *Journal of Mathematical Imaging and Vision*, vol. 27, num. 2, p. 157–173, 2007.

[BAD 95] BADDELEY A., VAN LIESHOUT M., "Area interaction point process", *Ann. Inst. Stat. Math.*, vol. 47, p. 601-619, 1995.

[BAD 05] BADDELEY A., VEDEL JENSEN E. B., *Stereology for statisticians*, Monographs on Statistics and Applied Probability, CRC Press, Boca Raton, Floride, 2005.

[BAE 59] BAER R., "On closure operators", *Archiv der Mathematik*, vol. 10, p. 261-266, 1959.

[BAE 97] DE BAETS B., "Fuzzy Morphology: a Logical Approach", AYYUB B., GUPTA M., Eds., *Uncertainty in engineering and sciences: fuzzy logic, statistics and neural network approach*, p. 53-67, Kluwer Academic Publishers, 1997.

[BAL 55a] BALACHANDRAN V., "A characterization of $\Sigma\Delta$-rings of subsets", *Fund. Math.*, vol. 41, p. 38-41, 1955.

[BAL 55b] BALACHANDRAN V., "On complete lattices and a problem of Birkhoff and Frink", *Proceedings of the American Mathematical Society*, vol. 6, p. 548-553, 1955.

[BAN 92] BANDEMER H., NÄTHER W., *Fuzzy Data Analysis*, Theory and Decision Library, Serie B: Mathematical and Statistical Methods, Kluwer Academic Publishers, Dordrecht, 1992.

[BAR 76] BARNETT V., "The ordering of multivariate data (with discussion)", *Journal of the Royal Statistical Society (A)*, vol. 139, num. 3, p. 318-355, 1976.

[BAY 01] BAYER M., PULLAN M., MANN D., JUGGINS S., CIOBANU A., SANTOS L., DU BUF H., FISCHER S., BUNKE H., WILKINSON M., ROERDINK J., PECH-PACHECO J., CHRISTOBAL G., CIRIMELE V., LUDES B., "ADIAC: Using computer vision technology for automatic diatom identification", ECONOMOU-AMILI A., Ed., *Proc. 16th Int. Diatom Symp*, p. 537-562, Athens, Greece, 2001.

[BEN 05] BENEDIKTSSON J., PALMASON J., SVEINSSON J., "Classification of hyperspectral data from urban areas based on extended morphological profiles", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 43, num. 3, p. 480-491, March 2005.

[BER 94a] BERTRAND G., "Simple points, topological numbers and geodesic neighborhoods in cubic grids", *Pattern Recognition Letters*, vol. 15, p. 1003-1011, 1994.

[BER 94b] BERTRAND G., MALANDAIN G., "A new characterization of three-dimensional simple points", *Pattern Recognition Letters*, vol. 15, num. 2, p. 169-175, 1994.

[BER 95] BERTRAND G., "On P-simple points", *Comptes Rendus de l'Académie des Sciences, Série Math.*, vol. I, num. 321, p. 1077-1084, 1995.

[BER 97] BERTRAND G., EVERAT J., COUPRIE M., "Image segmentation through operators based upon topology", *Journal of Electronic Imaging*, vol. 6, num. 4, p. 395-405, 1997.

[BER 05] BERTRAND G., "On topological watersheds", *Journal of Mathematical Imaging and Vision*, vol. 22, num. 2-3, p. 217-230, May 2005.

[BER 07a] BERTRAND G., "On critical kernels", *Comptes Rendus de l'Académie des Sciences, Série Math.*, vol. I, num. 345, p. 363-367, 2007.

[BER 07b] BERTRAND G., "On the dynamics", *Image and Vision Computing*, vol. 25, num. 4, p. 447-454, 2007.

[BEU 79a] BEUCHER S., LANTUÉJOUL C., Sur l'utilisation de la ligne de partage des eaux en détection de contours, Technical report num. N-598, École Nationale Supérieure des Mines de Paris, May 1979.

[BEU 79b] BEUCHER S., LANTUÉJOUL C., "Use of watersheds in contour detection", *International Workshop on Image Processing*, p. 2.1-2.12, CCETT/IRISA, Rennes, September 1979.

[BEU 93] BEUCHER S., MEYER F., "The morphological approach to segmentation: the watershed transformation", DOUGHERTY E., Ed., *Mathematical morphology in image processing*, vol. 34 of *Optical Engineering*, Chapter 12, p. 433-481, Marcel Dekker, New York, 1993.

[BEU 94] BEUCHER S., "Watershed, hierarchical segmentation and waterfall algorithm", SERRA J., SOILLE P., Eds., *Mathematical Morphology and its Applications to Image Processing*, p. 69-76, Kluwer Academic Publishers, 1994.

[BIE 05] BIELSKI C., SOILLE P., "Order independent image compositing", *Lecture Notes in Computer Science*, vol. 3617, p. 1076-1083, September 2005.

[BIE 07] BIELSKI C., GRAZZINI J., SOILLE P., "Automated adaptive morphological image composition for mosaicing large image data sets", *Proc. Int. Geosc. and Rem. Sens. Symp. (IGARS'07)*, p. 4068-4071, IEEE Press, Barcelona, Spain, July 2007.

[BIG 91] BIGÜN J., GRANLUND G., WIKLUND J., "Multidimensional orientation estimation with applications to texture analysis and optical flow", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 13, p. 775-990, 1991.

[BIL 92] BILODEAU M., Architecture logicielle pour processeur de morphologie mathématique, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1992.

[BIR 95] BIRKHOFF G., *Lattice Theory*, third edition, vol. 25 of *American Mathematical Society Colloquium Publications*, American Mathematical Society, 1995.

[BLO 93a] BLOCH I., About Properties of Fuzzy Mathematical Morphologies: Proofs of Main Results, Technical report, Télécom Paris 93D023, December 1993.

[BLO 93b] BLOCH I., MAÎTRE H., "Constructing a Fuzzy Mathematical Morphology: Alternative Ways", *Second IEEE International Conference on Fuzzy Systems, FUZZ IEEE 93*, p. 1303-1308, San Francisco, California, USA, March 1993.

[BLO 95a] BLOCH I., MAÎTRE H., "Fuzzy Mathematical Morphologies: A Comparative Study", *Pattern Recognition*, vol. 28, num. 9, p. 1341-1387, 1995.

[BLO 95b] BLOOMBERG D. S., KOPEC G. E., DASARI L., "Measuring document image skew and orientation", *SPIE Conf. 2422, Doc. Rec. II*, p. 302-316, 1995.

[BLO 96] BLOCH I., PELLOT C., SUREDA F., HERMENT A., "Fuzzy Modelling and Fuzzy Mathematical Morphology applied to 3D Reconstruction of Blood Vessels by Multi-Modality Data Fusion", YAGER R., DUBOIS D., PRADE H., Eds., *Fuzzy Set Methods in Information Engineering: A Guided Tour of Applications*, Chapter 5, p. 93-110, John Wiley & Sons, New York, 1996.

[BLO 97] BLOCH I., MAÎTRE H., ANVARI M., "Fuzzy adjacency between image objects", *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, vol. 5, num. 6, p. 615-653, 1997.

[BLO 99a] BLOCH I., "Fuzzy relative position between objects in image processing: a morphological approach", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 21, num. 7, p. 657-664, 1999.

[BLO 99b] BLOCH I., "On Fuzzy Distances and their Use in Image Processing under Imprecision", *Pattern Recognition*, vol. 32, num. 11, p. 1873-1895, 1999.

[BLO 00] BLOCH I., "On Links between Mathematical Morphology and Rough Sets", *Pattern Recognition*, vol. 33, num. 9, p. 1487-1496, 2000.

[BLO 02a] BLOCH I., "Modal Logics based on Mathematical Morphology for Spatial Reasoning", *Journal of Applied Non Classical Logics*, vol. 12, num. 3-4, p. 399-424, 2002.

[BLO 02b] BLOCH I., LANG J., "Towards Mathematical Morpho-Logics", BOUCHON-MEUNIER B., GUTIERREZ-RIOS J., MAGDALENA L., YAGER R., Eds., *Technologies for Constructing Intelligent Systems*, p. 367-380, Springer-Verlag, 2002.

[BLO 02c] BLOOMBERG D. S., Analysis of document skew, 2002.

[BLO 03a] BLOCH I., "Traitement d'images", BOUCHON-MEUNIER B., MARSALA C., Eds., *Traitement de données complexes et commande en logique floue*, Chapter 3, p. 95-152, Hermes, Paris, France, 2003.

[BLO 03b] BLOCH I., RALESCU A., "Directional Relative Position between Objects in Image Processing: A Comparison between Fuzzy Approaches", *Pattern Recognition*, vol. 36, p. 1563-1582, 2003.

[BLO 05] BLOCH I., "Duality vs Adjunction and General Form for Fuzzy Mathematical Morphology", *WILF*, vol. 3849 of *Lecture Notes in Computer Science*, p. 354-361, Crema, Italy, September 2005.

[BLO 06a] BLOCH I., "Spatial Reasoning under Imprecision using Fuzzy Set Theory, Formal Logics and Mathematical Morphology", *International Journal of Approximate Reasoning*, vol. 41, p. 77-95, 2006.

[BLO 06b] BLOCH I., COLLIOT O., CESAR R., "On the Ternary Spatial Relation "Between"", *IEEE Transactions on Systems, Man, and Cybernetics SMC-B*, vol. 36, num. 2, p. 312-327, April 2006.

[BLO 07] BLOCH I., HEIJMANS H., RONSE C., "Mathematical Morphology", AIELLO M., PRATT-HARTMANN I., VAN BENTHEM J., Eds., *Handbook of Spatial Logics*, Chapter 14, p. 857-944, Springer, 2007.

[BLO 09] BLOCH I., "Duality vs. Adjunction for Fuzzy Mathematical Morphology and General Form of Fuzzy Erosions and Dilations", *Fuzzy Sets and Systems*, vol. 160, p. 1858-1867, 2009.

[BLO 10] BLOOMBERG D., "http://www.leptonica.org", 2010.

[BLU 61] BLUM H., "An associative machine for dealing with the visual field and some of its biological implications", BERNARD E. E., KARE M. R., Eds., *Biological Prototypes and synthetic systems*, vol. 1, p. 244-260, 2nd Annual Bionics Symposium, Cornell University, Plenum Press, New York, 1961.

[BLU 67] BLUM H., "A transformation for extracting new descriptors of shape", WATHEN-DUNN W., Ed., *Models for the Perception of Speech and Visual Form*, p. 362-380, M.I.T. Press, Cambridge, MA, USA, 1967.

[BLY 72] BLYTH T., JANOWITZ M., *Residuation Theory*, Pergamon Press, 1972.

[BOO 96] VAN DEN BOOMGAARD R., DORST L., MAKRAM-EBEID S., SCHAVEMAKER J., "Quadratic structuring functions in mathematical morphology", MARAGOS P., SCHAFER

R., BUTT M., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, p. 147-154, Kluwer Academic Publishers, Atlanta, GA., 1996.

[BOR 84] BORGEFORS G., "Distance transformations in arbitrary dimensions", *Computer Vision, Graphics, and Image Processing*, vol. 27, p. 321-345, 1984.

[BOR 86] BORGEFORS G., "Distance transformations in digital images", *Computer Vision, Graphics, and Image Processing*, vol. 34, p. 344-371, 1986.

[BOU 72] BOUSSISNESQ J., "Essai sur la théorie des eaux courantes", *Mémoires présentés par divers savants à l'Académie des Sciences*, Chapter Disgression sur les thalwegs et les faites à la surface du sol et sur leur rapports avec les lignes des déclivités minima, p. 162-178, Institut de France, 1872.

[BOU 32] BOULIGAND G., *Introduction à la géométrie infinitésimale directe*, Vuibert, 1932.

[BOU 08a] BOUAYNAYA N., CHARIF-CHEFCHAOUNI M., SCHONFELD D., "Theoretical foundations of spatially-variant mathematical morphology part I: binary images", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 30, num. 5, p. 823-836, IEEE Computer Society, 2008.

[BOU 08b] BOUAYNAYA N., SCHONFELD D., "Theoretical foundations of spatially-variant mathematical morphology part II: gray-level images", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 30, num. 5, p. 837-850, IEEE Computer Society, 2008.

[BOU 10] BOURAOUI B., RONSE C., BARUTHIO J., PASSAT N., GERMAIN P., "3D segmentation of coronary arteries based on advanced Mathematical Morphology techniques", *Computerized Medical Imaging and Graphics*, vol. 34, num. 5, p. 377-387, Elsevier, july 2010.

[BOY 01] BOYKOV Y., VEKSLER O., ZABIH R., "Fast Approximate Energy Minimization via Graph Cuts", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 23, num. 11, p. 1222-1239, 2001.

[BOY 04] BOYKOV Y., KOLMOGOROV V., "An experimental comparison of min-cut/max-flow algorithms for energy minimization in vision", *Pattern Analysis and Machine Intelligence, IEEE Transactions on*, vol. 26, num. 9, p. 1124-1137, September 2004.

[BRE 89] BRETHEAU T., JEULIN D., "Caractéristiques morphologiques des constituants et comportement élastique d'un matériau biphasé Fe/Ag", *Revue Phys. Appl.*, vol. 24, p. 861-869, 1989.

[BRE 93] BREEN E., SOILLE P., "Generalization of van Herk recursive erosion/dilation algorithm to lines at arbitrary angles", FUNG K., GINIGE A., Eds., *Proc. DICTA'93: Digital Image Computing: Techniques and Applications*, p. 549-555, Australian Pattern Recognition Society, Sydney, Australia, December 1993.

[BRE 94] BREEN E., MONRO D., "An evaluation of priority queues for mathematical morphology", SERRA J., SOILLE P., Eds., *Mathematical Morphology and its Applications to Image Processing*, p. 249-256, Kluwer Academic Publishers, 1994.

[BRE 96] BREEN E., JONES R., "Attribute openings, thinnings, and granulometries", *Computer Vision and Image Understanding*, vol. 64, num. 3, p. 377-389, 1996.

[BRU 05] BRUN L., MOKHTARI M., MEYER F., "Hierarchical watersheds within the Combinatorial Pyramid framework", *Proceedings of the 12th international conference on Discrete Geometry for Computer Imagery*, vol. 3429 of *Lecture Notes in Computer Science*, IAPR-TC18, 2005.

[BRU 07] BRUNNER D., SOILLE P., "Iterative area filtering of multichannel images", *Image and Vision Computing*, vol. 25, num. 8, p. 1352-1364, August 2007.

[BRU 09] BRUNNER D., SOILLE P., "Towards building shadow extraction in VHR SAR images using mathematical morphology", WILKINSON M., ROERDINK J., Eds., *Abstract book of the 9th Int. Symp on Math. Morph (ISMM'2009)*, p. 17-20, University of Groningen, The Netherlands, 2009.

[BUF 02] BUF J. M. H. D., BAYER M. M., Eds., *Automatic Diatom Identification*, Machine Perception and Artificial Intelligence, World Scientific Publishing Co., Singapore, 2002.

[BUR 83] BURT P., ADELSON E., "The Laplacian pyramid as a compact image code", *IEEE Transactions on Communication*, vol. 31, p. 532-540, 1983.

[BUS 89] BUSER P. T., AUFFERMANN W., HOLT W. W., WAGNER S., KIRCHER B., WOLFE C., HIGGINS C. B., "Noninvasive evaluation of global left ventricular function with use of cine nuclear magnetic resonance", *Journal of the American College of Cardiology*, vol. 13, num. 6, p. 1294-1300, 1989.

[CAL 68] CALABI L., HARTNETT W. E., "Shape recognition, prairie fires, convex deficiencies and skeletons", *Amer. Math. Monthly*, vol. 75, p. 335-342, 1968.

[CAL 09] CALDAIROU B., NAEGEL B., PASSAT N., "Segmentation of complex images based on component-trees: Methodological tools", WILKINSON M., ROERDINK J., Eds., *Proceedings of the 9th International Symposium on Mathematical Morphology (ISMM'09)*, vol. 5720 of *Lecture Notes in Computer Science*, p. 171–180, Springer, Groningen, The Netherlands, August 24–27 2009.

[CAN 02] CAN A., STEWART C., ROYSAM B., TANENBAUM H., "A feature-based technique for joint, linear estimation of high-order image-to-mosaic transformations: mosaicing the curved human retina", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 24, num. 3, p. 412-419, 2002.

[CAR 72] CARTER D. S., PRENTER P. M., "Exponential spaces and counting processes", *Probability Theory and Related Fields*, vol. 21, num. 1, p. 1–19, March 1972.

[CAR 94] CARRON T., LAMBERT P., "Color edge detector using jointly Hue, Saturation and Intensity", *ICIP'94 - Proc. of IEEE International Conference on Image Processing*, p. 977-981, 1994.

[CAS 96] CASAS J., "Morphological interpolation for image coding", BERGER M.-O., DERICHE R., HERLIN I., JAFFRÉ J., MOREL J., Eds., *Proc. of 12th Conference on Analysis and Optimization of Systems*, vol. 219 of *Lecture Notes in Control and Information Sciences*, p. 295-304, Springer-Verlag, 1996.

[CAS 10] CASELLES V., MONASSE P., *Geometric Description of Images as Topographic Maps*, vol. 1984 of *Lecture Notes in Computer Science*, Springer, 2010.

[CAY 82] CAYROL M., FARRENY H., PRADE H., "Fuzzy pattern matching", *Kybernetes*, vol. 11, p. 103-116, 1982.

[CHA 94] CHARIF-CHEFCHAOUNI M., SCHONFELD D., "Spatially-variant mathematical morphology", *Proceedings of International Conference on Image Processing (ICIP)*, vol. 2, p. 555-559, November 1994.

[CHA 98a] CHANUSSOT J., Approches vectorielles ou marginales pour le traitement d'images multi-composantes, doctoral dissertation, University of Savoy, Chambéry, November 1998.

[CHA 98b] CHANUSSOT J., LAMBERT P., "Total ordering based on space filling curves for multivalued morphology", *ISMM'98 - 4th International Symposium on Mathematical Morphology and its Applications*, p. 51-58, Kluwer Academic Publishers, 1998.

[CHA 99a] CHANUSSOT J., MAURIS G., LAMBERT P., "Fuzzy fusion techniques for linear features detection in multitemporal SAR images", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 37, num. 3, p. 1292-1305, May 1999.

[CHA 99b] CHANUSSOT J., PAINDAVOINE M., LAMBERT P., "Real time vector median like filter FPGA design", *IEEE ICIP'99 - International Conference on Image Processing*, vol. 2, p. 414-418, 1999.

[CHA 00] CHAZELLE B., "A Minimum Spanning Tree Algorithm with Inverse-Ackermann Type Complexity", *Journal of the ACM*, vol. 47, p. 1028-1047, 2000.

[CHA 03] CHAUMONT M., Représentation en objets vidéo pour un codage progressif et concurrentiel des séquences d'images, doctoral dissertation, University of Rennes 1, 2003.

[CHA 05] CHAZAL F., LIEUTIER A., "The Lambda Medial Axis", *Graphical Models*, vol. 67, num. 4, p. 304-331, 2005.

[CHA 09] CHAUSSARD J., COUPRIE M., TALBOT H., "A discrete lambda-medial axis", *Proceedings of the 15th international conference on Discrete Geometry for Computer Imagery (DGCI'09)*, vol. 5810 of *Lecture Notes in Computer Science*, p. 421-433, Springer, October 2009.

[CHE 98] CHEN F. R., BLOOMBERG D. S., "Summarization of imaged documents without OCR", *Computer Vision and Image Understanding*, vol. 70, num. 3, p. 307-320, 1998.

[CHI 99] CHILÈS J. P., DELFINER P., *Geostatistics - Modeling spatial uncertainty*, John Wiley & Sons, New York, 1999.

[CHO 54] CHOQUET G., "Theory of capacities", *Annales de l'institut Fourier*, vol. 5, p. 131–295, 1954.

[CHO 65] CHOQUET G., *Topologie*, Masson, Paris, 1965.

[CIC 94] CICCONI P., A spatio-temporal region-based video coding scheme for very-low bitrates, doctoral dissertation, École Polytechnique Fédérale de Lausanne, 1994.

[COE 03] COEURJOLLY D., "d-dimensional reverse Euclidean distance transformation and Euclidean medial axis extraction in optimal time", *Proceedings of Discrete Geometry for Computer Imagery*, vol. 2886 of *Lecture Notes in Computer Science*, p. 327-337, 2003.

[COL 06] COLLIOT O., CAMARA O., BLOCH I., "Integration of Fuzzy Spatial Relations in Deformable Models - Application to Brain MRI Segmentation", *Pattern Recognition*, vol. 39, num. 8, p. 1401-1414, August 2006.

[COL 07] COLOMBO R., VOGT J., SOILLE P., PARACCHINI M., DE JAGER A., "On the derivation of river networks and catchments at European scale from medium resolution digital elevation data", *Catena*, vol. 70, num. 3, p. 296-305, August 2007.

[COM 99] COMER M., DELP E., "Morphological operations for color image processing", *Journal of Electronic Imaging*, vol. 8, num. 3, p. 279-289, 1999.

[COM 07] COMBARET N., TALBOT H., "Robust 3D segmentation of composite materials fibres", BANON G. J. F., BARRERA J., BRAGA-NETO U. D. M., HIRATA N. S. T., Eds., *Proceedings*, vol. 2, p. 25-26, University of São Paulo (USP), Instituto Nacional de Pesquisas Espaciais (INPE), São José dos Campos, October 2007.

[COR 09] CORMEN T. H., LEISERSON C. E., RIVEST R. L., STEIN C., *Introduction to Algorithms*, 3rd edition, The MIT Press, 2009.

[COU 05] COUPRIE M., NAJMAN L., BERTRAND G., "Quasi-linear algorithms for the topological watershed", *Journal of Mathematical Imaging and Vision, special issue on Mathematical Morphology*, vol. 22, num. 2-3, p. 231-249, May 2005.

[COU 06a] COUPRIE M., Note on fifteen 2D parallel thinning algorithms, Technical report num. IGM2006-01, University of Paris-Est, 2006.

[COU 06b] COUSTY J., BERTRAND G., COUPRIE M., NAJMAN L., "Fusion graphs, region merging and watersheds", *Procs. of the 13th International Conference on Discrete Geometry for Computer Imagery*, vol. 4245 of *Lecture Notes in Computer Science*, p. 343-354, 2006.

[COU 06c] COUSTY J., COUPRIE M., NAJMAN L., BERTRAND G., "Grayscale Watersheds on Perfect Fusion Graphs", *Procs. of the 11th International Workshop on Combinatorial Image Analysis*, vol. 4040 of *Lecture Notes in Computer Science*, p. 60-73, 2006.

[COU 07a] COUPRIE M., COEURJOLLY D., ZROUR R., "Discrete bisector function and Euclidean skeleton in 2D and 3D", *Image and Vision Computing*, vol. 25, num. 10, p. 1543-1556, 2007.

[COU 07b] COUSTY J., BERTRAND G., NAJMAN L., COUPRIE M., "Watershed cuts", BANON G. J. F., BARRERA J., BRAGA-NETO U. D. M., HIRATA N. S. T., Eds., *Mathematical Morphology and its Applications to Signal and Image Processing, proc. 8th International Symposium on Mathematical Morphology*, p. 301-312, 2007.

[COU 07c] COUSTY J., BERTRAND G., NAJMAN L., COUPRIE M., Watersheds, minimum spanning forests, and the drop of water principle, Technical report num. IGM2007-01, LabInfo-IGM, UMR 8049, University of Paris-Est, 2007, `http://igm.univ-mlv.fr/LabInfo/rapportsInternes/2007/01.pdf`.

[COU 07d] COUSTY J., BERTRAND G., NAJMAN L., COUPRIE M., Watersheds, minimum spanning forests, and the drop of water principle, Technical report num. IGM2007-01, University of Paris-Est, 2007.

[COU 07e] COUSTY J., NAJMAN M., COUPRIE M., CLÉMENT-GUINAUDEAU S., T. G., GAROT J., "Automated, Accurate and Fast Segmentation of 4D Cardiac MR Images", *Functional Imaging and Modeling of the Heart - FIMH'07, 4th International Conference, Proceedings*, vol. 4466 of *Lecture Notes in Computer Science*, p. 474-483, Springer, 2007.

[COU 08a] COUSTY J., BERTRAND G., COUPRIE M., NAJMAN L., "Fusion graphs: merging properties and watersheds", *Journal of Mathematical Imaging and Vision*, vol. 30, p. 87-104, January 2008.

[COU 08b] COUSTY J., COUPRIE M., NAJMAN L., BERTRAND G., "Weighted fusion graphs: merging properties and watersheds", *Discrete Applied Mathematics*, vol. 156, num. 15, p. 3011-3027, 2008.

[COU 08c] COUSTY J., NAJMAN L., SERRA J., "Raising in watershed lattices", *15th IEEE International Conference on Image Processing (ICIP'08)*, p. 2196–2199, San Diego, USA, October 2008.

[COU 09a] COUPRIE C., GRADY L., NAJMAN L., TALBOT H., "Power watersheds: a new image segmentation framework extending graph cuts, random walker and optimal spanning forest", *12th International Conference on Computer Vision (ICCV'09)*, p. 731–738, September 2009.

[COU 09b] COUPRIE C., GRADY L., NAJMAN L., TALBOT H., "Power watersheds: a new image segmentation framework extending graph cuts, random walker and optimal spanning forest", *12th International Conference on Computer Vision (ICCV'09)*, p. 731-738, September 2009.

[COU 09c] COUPRIE M., BERTRAND G., "New characterizations of simple points in 2D, 3D and 4D discrete spaces", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 31, num. 4, p. 637–648, 2009.

[COU 09d] COUSTY J., BERTRAND G., "Uniqueness of the perfect fusion grid on $\mathbb{Z}^{d}$", *Journal of Mathematical Imaging and Vision*, vol. 34, num. 3, p. 291–306, Springer, 2009.

[COU 09e] COUSTY J., BERTRAND G., COUPRIE M., NAJMAN L., "Collapses and watersheds in pseudomanifolds", WIEDERHOLD P., BARNEVA R. P., Eds., *13th International Workshop on Combinatorial Image Analysis (IWCIA'09)*, vol. 5852 of *Lecture Notes in Computer Science*, p. 397-410, Springer, November 2009.

[COU 10a] COUSTY J., NAJMAN L., COUPRIE M., CLÉMENT-GUINAUDEAU S., GOISSEN T., GAROT J., "Segmentation of 4D cardiac MRI: automated method based on spatio-temporal watershed cuts", *Image and Vision Computing*, vol. 28, num. 8, p. 1229-1243, 2010.

[COU 10b] COUSTY J., BERTRAND G., NAJMAN L., COUPRIE M., "Watershed cuts: thinnings, shortest-path forests and topological watersheds", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 32, num. 5, p. 925–939, 2010.

[COX 80] COX D., ISHAM V., *Point processes*, Chapmann and Hall, New York, 1980.

[CRE 92] CRESSIE N., *Statistics for spatial data*, John Wiley & Sons, Providence, RI, 1992.

[CRE 93a] CRESPO J., Morphological Connected Filters and Intra-Region Smoothing for Image Segmentation, PhD thesis, School of Electrical Engineering, Georgia Institute of Technology, Atlanta, Georgie, USA, 1993.

[CRE 93b] CRESPO J., SERRA J., SCHAFER R., "Image segmentation using connected filters", SERRA J., SALEMBIER P., Eds., *Mathematical morphology and its applications to signal processing*, p. 52-57, Universitat Politècnica de Catalunya, Barcelona, Spain, May 1993.

[CRE 95] CRESPO J., SERRA J., SCHAFER R., "Theoretical aspects of morphological filters by reconstruction", *Signal Processing*, vol. 47, p. 201-225, 1995.

[CRE 96] CRESPO J., "Space connectivity and translation-invariance", MARAGOS P., SCHAFER R., BUTT M., Eds., *International Symposium on Mathematical Morphology*, p. 118-126, Kluwer Academic Publishers, Atlanta, Georgia, May 1996.

[CRE 97a] CRESPO J., SCHAFER R., SERRA J., GRATIN C., MEYER F., "The flat zone approach: a general low-level region merging segmentation method", *Signal Processing*, vol. 62, num. 1, p. 37-60, 1997.

[CRE 97b] CRESPO J., SCHAFER R. W., "Locality and Adjacency Stability Constraints for Morphological Connected Operators", *Journal of Mathematical Imaging and Vision*, vol. 7, p. 85-102, 1997.

[CRO 56] CROISOT R., "Applications résiduées", *Annales Scientifiques de l'École Normale Supérieure*, vol. 73, p. 453-474, 1956.

[DAN 80] DANIELSSON P., "Euclidean distance mapping", *Computer Graphics and Image Processing*, vol. 14, p. 227-248, 1980.

[DAR 02] DARAGON X., COUPRIE M., "Segmentation topologique du néo-cortex cérébral depuis des données IRM dans le cadre de la topologie des ordres", *Reconnaissance des Formes et Intelligence Artificielle - RFIA'02, 13e Congrès Francophone AFRIF-AFIA, Proceedings*, vol. 3, p. 809-818, Angers, France, January 2002.

[DAV 78] DAVY P., Stereology: A statistical viewpoint, PhD thesis, Australian National University, Canberra, Australia, 1978.

[DAV 81] DAVIES E., PLUMMER A., "Thinning algorithms: a critique and a new methodology", *Pattern Recognition*, vol. 14, p. 53-63, 1981.

[DEC 98] DECKER L., JEULIN D., TOVENA I., "3D morphological analysis of the connectivity of a porous medium", *Acta Stereologica*, vol. 17, num. 1, p. 107-112, 1998.

[DEC 01] DECENCIÈRE-FERRANDIÈRE E., MARCOTEGUI B., MEYER F., "Content dependent image sampling using mathematical morphology: application to texture mapping", *Signal Processing: Image Communication*, vol. 16, num. 6, p. 567-584, February 2001.

[DED 97] DEDEKIND R., "Über Zerlegungungen von Zahlen durch ihre grössten gemeinsamen Teiler", *Festschrift Techn. Hoch. Braunschweig*, 1897.

[DEH 62] DE HOFF R., "The determination of the size distribution of ellipsoidal particles from measurements made on random plane sections", *Transactions of the AIME*, vol. 224, p. 474-477, 1962.

[DEL 48] DELESSE A., "Procédé mécanique pour déterminer la composition des roches", *Annales des Mines, Quatrième Série*, vol. 13, p. 379-388, 1848.

[DEM 95] DEMKO C., ZAHZAH E. H., "Image understanding using fuzzy isomorphism of fuzzy structures", *IEEE Int. Conf. on Fuzzy Systems*, p. 1665-1672, Yokohama, Japan, March 1995.

[DEN 02] DENG T.-Q., HEIJMANS H., "Grey-scale morphology based on fuzzy logic", *Journal of Mathematical Imaging and Vision*, vol. 16, p. 155-171, 2002.

[DEN 04] DENECKE K., ERNÉ M., WISMATH S., Eds., *Galois Connections and Applications*, vol. 565 of *Mathematics and its Applications*, Kluwer Academic Publishers, 2004.

[DES 86] DESTIVAL I., "Mathematical morphology applied to remote sensing", *Acta Astronautica*, vol. 13, num. 6/7, p. 371-385, 1986.

[DIE 75] DIETRICH C., NEWSAM G., "Fast and exact simulation of stationary (gaussian) processes through circulant embedding of the covariance matrix", *SIAM Journal on scientific computing*, vol. 18, num. 4, p. 1088-1107, 1975.

[DIJ 59] DIJKSTRA E., "A note on two problems in connexion with graphs", *Numerische Mathematik*, vol. 1, p. 269-271, 1959.

[DOK 99] DOKLÁDAL P., LOHOU C., PERROTON L., BERTRAND G., "Liver blood vessels extraction by a 3-D topological approach", TAYLOR C., COLCHESTER A., Eds., *Medical Image Computing and Computer-Assisted Intervention - (MICCAI)*, vol. 1679 of *Lecture Notes in Computer Science*, p. 98-105, Springer, Cambridge, UK, September 1999.

[DOR 94] DORST L., VAN DEN BOOMGAARD R., "Morphological signal processing and the slope transform", *EURASIP Signal Processing*, vol. 38, num. 1, p. 79-98, September 1994.

[DOU 93] DOUGHERTY E., Ed., *Mathematical morphology in image processing*, vol. 34 of *Optical Engineering*, Marcel Dekker, New York, 1993.

[DOU 03a] DOUBLIER C., COUPRIE M., GAROT J., HAMAM Y., "Computer assisted segmentation, quantification and visualization of an infarcted myocardium from MRI images", *procs. Biomedsim'03*, p. 151-156, 2003.

[DOU 03b] DOUGHERTY E., LOTUFO R., *Hands-on Morphological Image Processing*, SPIE Press, 2003.

[DRO 94] DROOGENBROECK M. V., Traitement d'images numériques au moyen d'algorithmes utilisant la morphologie mathématique et la notion d'objet: application au codage, doctoral dissertation, Catholic University of Louvain and E.N.S. des Mines de Paris, 1994.

[DUB 80] DUBOIS D., PRADE H., *Fuzzy Sets and Systems: Theory and Applications*, Academic Press, New York, 1980.

[DUB 83] DUBOIS D., PRADE H., "Inverse Operations for Fuzzy Numbers", SANCHEZ E., GUPTA M., Eds., *Proceedings of the IFAC symposium on Fuzzy Information, Knowledge Representation and Decision Analysis*, p. 391-396, Marseille, France, July 1983.

[DUB 85] DUBOIS D., PRADE H., "A Review of fuzzy set aggregation connectives", *Information Sciences*, vol. 36, p. 85-121, 1985.

[DUB 88] DUBOIS D., PRADE H., TESTEMALE C., "Weighted fuzzy pattern matching", *Fuzzy Sets and Systems*, vol. 28, p. 313-331, 1988.

[DUB 91] DUBOIS D., PRADE H., "Fuzzy sets in approximate reasoning, Part I: inference with possibility distributions", *Fuzzy Sets and Systems*, vol. 40, p. 143-202, 1991.

[DUD 67] DUDA O., HART P., MUNSON J., Graphical data processing research study and exterimental investigation, Technical report num. AD650926, United States Army Electronics Command, 1967.

[DUR 30] DURAND G., "Théorie des ensembles. Points ordinarires et points singuliers des enveloppes de sphères", *Comptes-rendus de l'Académie des Sciences*, vol. 190, p. 571-573, 1930.

[DUR 31] DURAND G., Sur une généralisation des surfaces convexes, doctoral dissertation, Faculté des sciences de Paris, 1931.

[EME 06] EMERY X., LANTUÉJOUL C., "TBSIM: A computer program for conditional simulation of tridimensional gaussian random fields via the turning bands method", *Comp. and Geosc.*, vol. 32, p. 1615-1628, 2006.

[EPI 07] EPIFANIO I., SOILLE P., "Morphological texture features for unsupervised and supervised segmentations of natural landscapes", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 45, num. 4, p. 1074-1083, April 2007.

[EVE 44] EVERETT C., "Closure operators and Galois theory in lattices", *Trans. Amer. Math. Soc.*, vol. 55, p. 514-525, 1944.

[EYR 99] EYRE D., MILTON G., "A fast numerical scheme for computing the response of composites using grid refinement", *The European Physical Journal Applied Physics*, vol. 6, num. 41-47, 1999.

[FAI 08] FAISAN S., PASSAT N., NOBLET V., CHABRIER R., MEYER C., "Topology preserving warping of binary images: Application to atlas-based skull segmentation", METAXAS D., AXEL L., FICHTINGER G., SZÉKELY G., Eds., *Medical Image Computing and Computer-Assisted Intervention - MICCAI'08, 11th International Conference, Proceedings, Part I*, vol. 5241 of *Lecture Notes in Computer Science*, p. 211–218, Springer, New York, NY, USA, September, 6–10 2008.

[FAL 04] FALCAO A. X., STOLFI J., DE ALENCAR LOTUFO R., "The image foresting transform: theory, algorithms, and applications", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 26, num. 1, p. 19-29, 2004.

[FLO 83] FLOUZAT G., MERGHOUB Y., "Modélisation de l'extraction manuelle d'éléments texturaux par la morphologie mathématique", *Photo-Interprétation*, p. 59-64, 1983.

[FRE 87] FREDMAN M. L., TARJAN R. E., "Fibonacci heaps and their uses in improved network optimization algorithms", *Journal of the ACM*, vol. 34, num. 596-615, 1987.

[FUK 75] FUKUNAGA K., HOSTETLER L. D., "Estimation of the gradient of a density function with applications in pattern recognition", *IEEE Trans. Inform. Theor.*, vol. IT-21, p. 32-40, 1975.

[GAR 98] GARRIDO L., SALEMBIER P., GARCIA D., "Extensive operators in partition lattices for image sequence analysis", *EURASIP Signal Processing*, vol. 66, num. 2, p. 157-180, April 1998.

[GEE 97] VAN DER GEEST R. J., BULLER V. G. M., JANSEN E., LAMB H. J., BAUR L. H. B., VAN DER WALL E. E., DE ROOS A., REIBER J. H. C., "Comparison between manual and semiautomated analysis of left ventricular parameters from short-axis MR images", *Journal of Computer Assisted Tomography*, vol. 21, p. 756-765, 1997.

[GÉR 05] GÉRAUD T., "Ruminations on Tarjan's Union-Find algorithm and connected operators", *Mathematical Morphology: 40 Years On, Proceedings of the 7th International*

Symposium, vol. 30 of *Computational Imaging and Vision*, p. 105-116, Kluwer Academic Publishers, Paris, France, April 2005.

[GES 90] GESBERT S., HOWARD V., JEULIN D., MEYER F., "The use of basic morphological operations for 3D biological image analysis", *Trans. Roy. Microsc. Soc.*, vol. 1, p. 293-296, London, July 1990.

[GES 93] DI GESU V., MACCARONE M. C., TRIPICIANO M., "Mathematical Morphology based on Fuzzy Operators", LOWEN R., ROUBENS M., Eds., *Fuzzy Logic*, p. 477-486, Kluwer Academic Publishers, 1993.

[GHO 98] GHOSH P., CHANDA B., "Bi-variate pattern spectrum", *Proceedings SIB-GRAPI'98*, p. 476-483, IEEE Computer Society, Rio de Janeiro, 20-23 October 1998.

[GIA 89] GIARDINA C. R., SINHA D., "Image Processing using Pointed Fuzzy Sets", *SPIE Intelligent Robots and Computer Vision VIII: Algorithms and Techniques*, vol. 1192, p. 659-668, 1989.

[GIA 03] GIADA S., DE GROEVE T., EHRLICH D., SOILLE P., "Information extraction from very high resolution satellite images over Lukole refugee camp, Tanzania", *International Journal of Remote Sensing*, vol. 24, num. 22, p. 4251-4266, November 2003.

[GIB 81] GIBLIN P., *Graphs, surfaces and homology*, Chapman and Hall, 1981.

[GIE 03] GIERZ G., HOFMANN K., KEIMEL K., LAWSON J., MISLOVE M., SCOTT D., *Continuous Lattices and Domains*, vol. 93 of *Encyclopedia of Mathematics and its Applications*, Cambridge University Press, Cambridge, 2003.

[GIL 93] GIL J., WERMAN M., "Computing 2-D min, median, and max filters", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 15, num. 5, p. 504-507, May 1993.

[GIL 02] GIL J., KIMMEL R., "Efficient dilation, erosion, opening and closing algorithms", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 24, num. 12, p. 1606-1617, 2002.

[GOE 80] GOETCHERIAN V., "From Binary to Grey Tone Image Processing using Fuzzy Logic Concepts", *Pattern Recognition*, vol. 12, p. 7-15, 1980.

[GOG 69] GOGUEN J. A., "The logic of inexact concepts", *Synthese*, vol. 19, p. 325-373, 1969.

[GOL 69] GOLAY J., "Hexagonal parallel pattern transformations", *IEEE Transactions on Computers*, vol. C-18, num. 8, p. 733-740, 1969.

[GOM 99] GOMILA C., MEYER F., "Levelings in vector space", *IEEE International Conference on Image Processing, ICIP'99*, Kobe, Japan, October 1999.

[GOM 01] GOMILA C., Mise en correspondance de partitions en vue du suivi d'objets, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 2001.

[GON 87] GONZALES R. C., WINTZ P., *Digital Image Processing*, second edition, Addison-Wesley, 1987.

[GON 95] GONDRAN M., MINOUX M., *Graphes et algorithmes*, third edition, Eyrolles, Paris, 1995.

[GOO 04] GOODMAN J. E., O'ROURKE J., *Handbook of Discrete and Computational Geometry*, 2nd edition, Chapman & Hall / CRC, Boca Raton, 2004.

[GOU 92] GOUTSIAS J., "Morphological transformations of image sequences : a lattice theory approach", *Image Algebra and Morphological Image Processing 3*, vol. 1769 of *Proc. of SPIE*, p. 306-317, 1992.

[GOU 95] GOUTSIAS J., HEIJMANS H., SIVAKUMAR K., "Morphological Operators for Image Sequences", *Computer Vision and Image Understanding*, vol. 62, num. 3, p. 326-346, 1995.

[GRA 93] GRATIN C., De la représentation des images au traitement morphologique d'images tridimensionnelles, doctoral dissertation, École Nationale Supérieure des Mines de Paris, January 1993.

[GRA 95] GRABISCH M., SCHMITT M., "Mathematical morphology, order fillters and fuzzy logic", *Int. Joint Conf. of the 4th IEEE Int. Conf. on Fuzzy Systems and the 2nd Int. Fuzzy Engineering Symposium*, p. 2103-2108, Yokohama, Japan, March 1995.

[GRA 00] GRACIAS N., SANTOS-VICTOR J., "Underwater video mosaics as visual navigation maps", *Computer Vision and Image Understanding*, vol. 79, num. 1, p. 66-91, 2000.

[GRÄ 03] GRÄTZER G., *General Lattice Theory*, second edition, Birkhäuser, Basel, 2003.

[GRA 06] GRADY L., "Random Walks for Image Segmentation", *Pattern Analysis and Machine Intelligence, IEEE Transactions on*, vol. 28, num. 11, p. 1768-1783, November 2006.

[GRA 07] GRAZZINI J., SOILLE P., "Improved morphological interpolation of elevation contour data with generalised geodesic propagations", *Lecture Notes in Computer Science*, vol. 4673, p. 742-750, 2007.

[GRE 88] GREEN A., BERMAN M., SWITZER P., CRAIG M., "A transformation for ordering multispectral data in terms of image quality with implications for noise removal", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 26, num. 1, p. 65-74, 1988.

[GRI 92] GRIMAUD M., "New measure of contrast: dynamics", GADER P., DOUGHERTY E., SERRA J., Eds., *Image algebra and morphological image processing III*, vol. SPIE-1769, p. 292-305, July 1992.

[GRU 04] GRUJICIC M., GAO G., ROY W., "A computational analysis of the percolation threshold and the electrical conductivity of carbon nanotubes filled polymeric materials", *Journal of Materials Science*, vol. 39, num. 14, p. 4441-4449, 2004.

[GUI 04] GUICHARD F., MOREL J., RYAN B., *Contrast invariant image analysis and PDEs*, École Normale Supérieure de Cachan, 2004.

[GUI 06] GUIGUES L., COCQUEREZ J. P., MEN H. L., "Scale-Sets Image Analysis", *International Journal of Computer Vision*, vol. 68, num. 3, p. 289-317, 2006.

[HAD 50] HADWIGER H., "Minkowskische Addition und Subtraktion beliebiger Punktmengen und die Theoreme von Erhard Schmidt", *Mathematische Zeitschrift*, vol. 53, num. 3, p. 210-218, 1950.

[HAD 57] HADWIGER H., *Vorlesungen über Inhalt, Oberfläche und Isoperimetrie*, Springer-Verlag, 1957.

[HAL 88] HALL P., *Introduction to the theory of coverage processes*, John Wiley & Sons, New York, 1988.

[HAN 62] HAND G., "A theory of anisotropic fluids", *J. Fluid Mech.*, vol. 13, p. 33-46, 1962.

[HAN 01a] HANBURY A., SERRA J., "Mathematical morphology in the HLS colour space", *Proc. 12th British Machine Vision Conference (BMV'01)*, vol. II, p. 451-460, 2001.

[HAN 01b] HANBURY A., SERRA J., "Morphological Operators on the Unit Circle", *IEEE Transactions on Image Processing*, vol. 10, num. 12, p. 1842-1850, 2001.

[HAN 02] HANBURY A., Morphologie mathématique sur le cercle unité avec applications aux teintes et aux textures orientées, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 2002.

[HAU 63] HAUG H., Ed., *Proceedings of the First International Congress for Stereology*, Vienna, 1963.

[HEA 56] HEATH T. L., *The thirteen books of Euclid's elements*, second edition, vol. (3 volumes), Dover Publications, 1956.

[HEI 90] HEIJMANS H., RONSE C., "The algebraic basis of mathematical morphology: I. Dilations and erosions", *Computer Vision, Graphics, and Image Processing*, vol. 50, p. 245-295, 1990.

[HEI 91] HEIJMANS M., "Theoretical aspects of gray-level morphology", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 13, p. 182-193, 1991.

[HEI 92a] HEIJMANS H., NACKEN P., TOET A., VINCENT L., "Graph morphology", *Journal of Visual Communication and Image Representation*, vol. 3, num. 2, p. 24-38, March 1992.

[HEI 92b] HEIJMANS H., SERRA J., "Convergence, continuity and iteration in mathematical morphology", *Journal of Visual Communication and Image Representation*, vol. 3, p. 84-102, 1992.

[HEI 93] HEIJMANS H., VINCENT L., "Graph morphology in image analysis", DOUGHERTY E., Ed., *Mathematical morphology in image processing*, vol. 34 of *Optical Engineering*, Chapter 6, p. 171-203, Marcel Dekker, New York, 1993.

[HEI 94a] HEIJMANS H., *Morphological image operators*, Advances in Electronics and Electron Physics Series, Academic Press, Boston, 1994.

[HEI 94b] HEIJMANS H. J. A. M., "Construction of Self-Dual Morphological Operators and Modifications of the Median", *proceedings of IEEE International Conference on Image Processing*, vol. 2, p. 492-496, 1994.

[HEI 96] HEIJMANS H., "Morphological Filters for Dummies", MARAGOS P., Ed., *Mathematical morphology and its applications to Image and Signal processing*, p. 127-138, Kluwer Academic Publishers, Atlanta, GA, May 1996, Proceedings of the 3rd International Symposium on Mathematical Morphology.

[HEI 97] HEIJMANS H., "Connected Morphological Operators and Filters for Binary Images", *IEEE Int. Conference on Image Processing, ICIP'97*, vol. 2, p. 211-214, Santa Barbara, California, USA, October 1997.

[HEI 99] HEIJMANS H., "Connected morphological operators for binary images", *Computer Vision and Image Understanding*, vol. 73, num. 1, p. 99-120, 1999.

[HEI 00] HEIJMANS H., GOUTSIAS J., "Nonlinear multiresolution signal decomposition schemes–Part II: Morphological wavelets", *IEEE Transactions on Image Processing*, vol. 9, num. 11, p. 1897-1913, November 2000.

[HEI 01] HEIJMANS H., KESHET R., Inf-semilattice approach to self-dual morphology, Technical report num. PNA-R0101, CWI, January 2001.

[HEI 05] HEIJMANS H., BUCKLEY M., TALBOT H., "Path openings and closings", *Journal of Mathematical Imaging and Vision*, vol. 22, p. 107-119, 2005.

[HEN 09] HENGL T., REUTER H. I., Eds., *Geomorphometry: Concepts, Software, Applications*, Elsevier, Amsterdam, 2009.

[HER 92] VAN HERK M., "A fast algorithm for local minimum and maximum filters on rectangular and octogonal kernels", *Pattern Recognition Letters*, vol. 13, p. 517-521, 1992.

[HIR 96] HIRATA T., "A unified linear-time algorithm for computing distance maps", *Information Processing Letters*, vol. 58, num. 3, p. 129-133, 1996.

[HU 62] HU M. K., "Visual pattern recognition by moment invariants", *IRE Transactions on Information Theory*, vol. IT-8, p. 179-187, 1962.

[ISH 83] ISHIZUKA M., "Inference Methods based on Extended Dempster Shafer's Theory for Problems with Uncertainty / Fuzziness", *New Generation Computing*, vol. 1, p. 159-168, 1983.

[IWA 00a] IWANOWSKI M., Application of Mathematical Morphology to interpolation of numerical images, PhD thesis, Poythechnical University of Warsaw, 2000.

[IWA 00b] IWANOWSKI M., SERRA J., "The Morphological-affine object deformation", GOUTSIAS J., VINCENT L., BLOOMBERG D., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing, proceedings of the 5th ISMM*, p. 81–90, Kluwer Academic Publishers, 2000.

[IWA 05] IWANOWSKI M., SOILLE P., "Morphological refinement of an image segmentation", *Lecture Notes in Computer Science*, vol. 3691, p. 538-545, September 2005.

[JAC 96] JACKWAY P., "Gradient watersheds in morphological scale-space", *IEEE Transactions on Image Processing*, vol. 5, num. 6, p. 913-921, June 1996.

[JAL 04] JALBA A. C., WILKINSON M. H. F., ROERDINK J. B. T. M., "Automatic segmentation of diatom images", *Microsc. Res. Techn.*, vol. 65, p. 72-85, 2004.

[JAL 05] JALBA A. C., WILKINSON M. H. F., ROERDINK J. B. T. M., BAYER M. M., JUGGINS S., "Automatic diatom identification using contour analysis by morphological scale spaces", *Machine Vision and Applications*, vol. 16, p. 217-228, 2005.

[JAL 06] JALBA A. C., WILKINSON M. H. F., ROERDINK J. B. T. M., "Shape representation and recognition through morphological curvature scale spaces", *IEEE Transactions on Image Processing*, vol. 15, p. 331-341, 2006.

[JEA 07] JEAN A., JEULIN D., CANTOURNET S., FOREST S., MOUNOURY V., N'GUYEN F., "Rubber with carbon black fillers: parameters identification of a multiscale nanostructure

model", *Proc. European Conference on Constitutive Models for Rubber (ECCMR2007)*, Paris, France, September 2007.

[JEU 91] JEULIN D., Modèles morphologiques de structures aléatoires et de changement d'échelle, state doctorate dissertation, University of Caen, April 1991.

[JEU 92] JEULIN D., KURDY M., "Directional mathematical morphology for oriented image restoration and segmentation", *Proc. 8th ISS Congress*, vol. 11/SUPPL I, p. 545-550, Acta Stereologica, Irvine, CA, 1992.

[JEU 96] JEULIN D., "Modeling heterogeneous materials by random structures", *European Workshop on Application of Statistics and Probabilities in Wood Mechanics*, Publications of the École des Mines de Paris, Bordeaux, March 1996, CMM report N-06/96/MM.

[JEU 97] JEULIN D., "Dead leaves models, from space tesselations to random functions", JEULIN D., Ed., *Advances in Theory and Applications of Random Sets*, p. 137–156, World Scientific, 1997.

[JEU 00] JEULIN D., "Random texture models for materials structures", *Statistics and Computing*, vol. 10, p. 121-131, 2000.

[JEU 04] JEULIN D., Simulation d'agrégats aléatoires de sphères, Technical report, École Nationale Supérieure des Mines de Paris, March 2004.

[JEU 05a] JEULIN D., "Random Structures in Physics", BILODEAU M., MEYER F., SCHMITT M., Eds., *Space, Structure and Randomness, Contributions in Honor of Georges Matheron in the Fields of Geostatistics, Random Sets, and Mathematical Morphology*, vol. 183 of *Lecture Notes in Statistics*, p. 183-222, Springer-Verlag, 2005.

[JEU 05b] JEULIN D., MOREAUD M., "Multi-scale simulation of random spheres aggregates: application to nanocomposites", *9 ECS*, p. 341-348, Zakopane, Poland, May 2005.

[JEU 06a] JEULIN D., "Estimation of the size and spatial distribution of particles from thick sections", *6th Int. Conf. Stereology, Spatial Statistics and Stochastic*, p. 275-279, Image Analysis and Stereology, Prague, Czech Republic, June 2006.

[JEU 06b] JEULIN D., MOREAUD M., "Percolation d'agrégats multi-échelles de sphères et de fibres : Application aux nanocomposites", *Matériaux 2006*, Dijon, France, November 2006.

[JEU 06c] JEULIN D., MOREAUD M., "Percolation of multi-scale fiber aggregates", *S4G, 6th Int. Conf. Stereology, Spatial Statistics and Stochastic Geometry*, p. 269-274, Prague, Czech Republic, June 2006.

[JEU 07] JEULIN D., MOREAUD M., "Percolation of random cylinder aggregates", *Communication to ICS XII*, vol. 26, p. 121-127, Image Analysis and Stereology, Saint-Etienne, France, September 2007.

[JEU 08a] JEULIN D., LI W., OSTOJA-STARZEWSKI M., "On the geodesic property of strain field patterns in elasto-plastic composites", *Proc. R. Soc. A*, vol. 464, p. 1217-1227, 2008.

[JEU 08b] JEULIN D., MOREAUD M., "Segmentation of 2D and 3D textures from estimates of the local orientation", *Image Analysis and Stereology*, vol. 27, p. 183-192, 2008.

[JEU 08c] JEULIN D., MOREAUD M., "Statistical representative volume element for predicting the dielectric permittivity of random media", JEULIN D., FOREST S., Eds.,

Proc. CMDS 11, p. 429-436, Les Presses de l'École des Mines de Paris, Paris, France, July 2008.

[JI 89] JI L., PIPER J., TANG J., "Erosion and dilation of binary images by arbitrary structuring elements using interval coding", *Pattern Recognition Letters*, vol. 9, p. 201-209, 1989.

[JOH 03] JOHNSON G., FAIRCHILD M., "Visual Psychophysics and Color Appearance", SHARMA G., Ed., *CRC Digital Color Imaging Handbook*, p. 115-172, CRC Press, 2003.

[JON 96] JONES R., SOILLE P., "Periodic lines and their applications to granulometries", MARAGOS P., SCHAFER W., BUTT M., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, p. 264-272, Kluwer Academic Publishers, 1996.

[JON 99] JONES R., "Connected filtering and segmentation using component trees", *Computer Vision and Image Understanding*, vol. 75, num. 3, p. 215-228, 1999.

[JOR 72] JORDAN C., "Nouvelles Observations sur les lignes de faîte et de thalweg", *Comptes Rendus des Séances de l'Académie des Sciences*, vol. 75, p. 1023-1025, 1872.

[JOS 56] JOSEPH B. KRUSKAL J., "On the Shortest Spanning Subtree of a Graph and the Traveling Salesman Problem", *Proceedings of the American Mathematical Society*, vol. 7, num. 1, p. 48-50, February 1956.

[KAM 96] KAM A., KOPEC G., "Document image decoding by heuristic search", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 18, p. 945-950, September 1996.

[KAN 03] KANIT T., FOREST S., GALLIET I., MOUNOURY V., JEULIN D., "Determination of the size of the representative volume element for random composites: statistical and numerical approach", *International Journal of solids and structures*, vol. 40, num. 3647-3679, 2003.

[KAN 06] KANIT T., N'GUYEN F., FOREST S., JEULIN D., REED M., SINGLETON S., "Apparent and effective physical properties of heterogeneous materials: representativity of samples of two materials from food industry", *Computer Methods in Applied Mechanics and Engineering*, vol. 195, num. 33-36, p. 3960-3982, 2006.

[KAS 98] KASS M., WITKIN A., TERZOPOULOS D., "Snakes: Active Contour Models", *International Journal of Computer Vision*, vol. 1, num. 4, p. 321-331, 1998.

[KAU 88] KAUFMANN A., GUPTA M. M., *Fuzzy Mathematical Models in Engineering and Management Science*, North-Holland, Amsterdam, 1988.

[KAU 04] KAUS M. R., VON BERG J., WEESE J., NIESSEN W., PEKAR V., "Automated segmentation of the left ventricle in cardiac MRI", *Medical Image Analysis*, vol. 8, p. 245-254, 2004.

[KEN 97] KENDALL W., "On some Weighted Bolean Models", JEULIN D., Ed., *Advances in Theory and Applications of Random Sets*, p. 137-156, World Scientific, 1997.

[KES 81] KESTÉSZ J., "Percolation of holes between overlapping spheres: Monte Carlo calculation of the critical volume fraction", *J. Physique-Lettres*, vol. 42, p. L-393-L-395, 1981.

[KES 98] KESHET R., "Extension of morphological operations to complete semi-lattices and its applications to image and video processing", *proceedings of the 4th international symposium on Mathematical morphology and its applications to image and signal processing*, p. 35-42, Amsterdam, Netherlands, June 1998.

[KES 00] KESHET R., "Mathematical morphology on complete semilattices and its applications to image processing", *Fundamenta Informaticae*, vol. 41, num. 1-2, p. 33-56, January 2000.

[KES 05] KESHET R., "Shape-Tree Semilattice", *J. Math. Imaging Vis.*, vol. 22, num. 2-3, p. 309–331, Kluwer Academic Publishers, 2005.

[KES 07] KESHET R., "Adjacency lattices and shape-tree semilattices", *Image and Vision Computing*, vol. 25, num. 4, p. 436 - 446, 2007, International Symposium on Mathematical Morphology 2005.

[KHA 90] KHALIMSKY E., KOPPERMAN R., MEYER P., "Computer graphics and connected topologies on finite ordered sets", *Topology Appl.*, vol. 36, p. 1-17, 1990.

[KLE 76] KLEIN J., Conception et réalisation d'une unité logique pour l'analyse quantitative d'images, doctoral dissertation, University of Nancy, 1976.

[KLE 89] KLEIN J. C., PEYRARD R., "PIMM1, an image processing ASIC based on Mathematical Morphology", *Proceedings of the Second annual IEEE ASIC Seminar and Exhibit*, p. 1-4, 1989.

[KLE 90] KLEIN J. C., COLLANGE F., BILODEAU M., "A bit plane architecture for an image processor implemented with P.L.C.A. gate array", *proceedings of ECCV 1990*, vol. 427 of *Lecture Notes in Computer Science*, p. 33-49, Springer, 1990.

[KLE 00] KLEMENT E. P., MESIAR R., PAP E., *Triangular Norms*, Kluwer Academic Publishers, Dordrecht, 2000.

[KON 89] KONG Y. T., ROSENFELD A., "Digital topology: introduction and survey", *Comp. Vision, Graphics and Image Proc.*, vol. 48, p. 357-393, 1989.

[KON 95] KONG T., "On topology preservation in 2-D and 3-D thinning", *International Journal of Pattern Recognition and Artificial Intelligence*, vol. 9, num. 5, p. 813-844, 1995.

[KOP 94] KOPEC G., CHOU P., "Document image decoding using Markov source models", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 16, p. 602-617, June 1994.

[KOR 83] KORTE B., LOVÁSZ L., "Structural properties of greedoids", *Combinatorica*, vol. 3, num. 3, p. 359-374, 1983.

[KOS 90] KOSKO B., "Fuzziness vs. Probability", *International Jounal of General Systems*, vol. 17, p. 211-240, 1990.

[KRI 92] KRISHNAPURAM R., KELLER J. M., "Fuzzy set theoretic approach to computer vision: an overview", *IEEE Int. Conf. on Fuzzy Systems*, p. 135-142, San Diego, CA, USA, 1992.

[KUN 85] KUNT M., IKONOMOPOULOS A., KOCHER M., "Second-generation image-coding techniques", *Proceedings of the IEEE*, vol. 73, num. 4, p. 549-574, April 1985.

[LAM 97] LAMBERT P., CHANUSSOT J., "Bit mixing paradigm for multivalued morphological filters", *IEE IPA'97 - 6th IEE International Conference on Image Processing and its Applications*, p. 804-808, IEE, July 1997.

[LAM 00] LAMBERT P., CHANUSSOT J., "Extending mathematical morphology to color image processing", *CGIP'00 - 1st International Conference on Color in Graphics and Image Processing*, p. 158-163, Saint Étienne, France, 2000.

[LAN 78] LANTUÉJOUL C., La squelettisation et son application aux mesures topologiques des mosaïques polycristallines, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1978.

[LAN 80a] LANTUÉJOUL C., "On the estimation of mean values in individual analysis of particles", *Microscopica Acta*, vol. 4, p. 266-273, 1980.

[LAN 80b] LANTUÉJOUL C., "Skeletonization in quantitative metallography", HARALICK R., SIMON J., Eds., *Issues in Digital Image Processing*, vol. 34 of *NATO ASI Series E*, p. 107-135, Sijthoff & Noordhoff, Alphen aan den Rijn, 1980.

[LAN 84] LANTUÉJOUL C., MAISONNEUVE F., "Geodesic methods in quantitative image analysis", *Pattern Recognition*, vol. 17, p. 177–, 1984.

[LAN 91] LANTUÉJOUL C., "Ergodicity and integral range", *Journal of Microscopy*, vol. 161-3, p. 387-403, 1991.

[LAN 02] LANTUÉJOUL C., *Geostatistical simulation: models and algorithms*, Springer, Berlin, 2002.

[LAN 07] LANGLEY A. G., BLOOMBERG D. S., "Google Books: Making the public domain universally accessible", *SPIE Conf. 6500, Document Recognition and Retrieval XIV*, 2007.

[LAP 91] LAPLANTE P. A., GIARDINA C. R., "Fast Dilation and Erosion of Time Varying Grey Valued Images with Uncertainty", *SPIE Image Algebra and Morphological Image Processing II*, vol. 1568, p. 295-302, 1991.

[LEM 96] LEMONNIER F., Architecture électronique dédiée aux algorithmes rapides de segmentation basés sur la morphologie mathématique, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1996.

[LER 06a] LERALLUT R., Modélisation et interprétation d'images à l'aide de graphes, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 2006.

[LER 06b] LERALLUT R., DECENCIÈRE E., MEYER F., "Image filtering using morphological amoebas", *Image and Vision Computing*, vol. 25, num. 4, p. 395-404, 2006.

[LEV 09] LEVILLAIN R., GÉRAUD T., NAJMAN L., "Milena: Write Generic Morphological Algorithms Once, Run on Many Kinds of Images", WILKINSON M., ROERDINK J., Eds., *Mathematical Morphology, Proceedings of the 9th International Symposium*, vol. 5720 of *Lecture Notes in Computer Science*, p. 295-306, Springer-Verlag, Groningen, Netherlands, August 2009.

[LEY 88] LEYMARIE F., LEVINE M. D., Curvature morphology, Technical report num. TR-CIM-88-26, Computer Vision and Robotics Laboratory, McGill University, Montreal, Canada, 1988.

[LEY 91] LEYMARIE F., LEVINE M., "Computing Euclidean skeleton via an active contour model", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 14, num. 1, p. 56-75, 1991.

[LEY 92] LEYMARIE F., LEVINE M., "Simulating the grassfire transform using an active contour model", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 14, num. 1, p. 56-75, IEEE Computer Society, 1992.

[LIE 00] VAN LIESHOUT M., *Markov Point Processes and their Applications*, Imperial College, London, 2000.

[LIL 03] LILLESAND T., KIEFER R., CHIPMAN J., *Remote sensing and image interpretation*, 5th edition, John Wiley & Sons, 2003.

[LIS 61] LISTING J., *Abhandlungen der Mathematischen Classe der Königlichen Gesellschaft der Wissenschaften zu Göttingen*, 1861.

[LOR 87] LORENSEN W., CLINE H., "Marching cubes: A high resolution 3D surface construction algorithm", *SIGGRAPH '87: Proceedings of the 14th annual conference on Computer graphics and interactive techniques*, p. 163-169, ACM Press, 1987.

[LOR 06] LORENZO-VALDÉS M., SANCHEZ-ORTIZ G. I., ELINGTON A. G., MOHIADDIN R. H., RUECKERT D., "Segmentation of 4D cardiac MR images using a probabilistic atlas and the EM algorithm", *Medical Image Analysis*, vol. 10, p. 286-303, 2006.

[LÖT 04] LÖTJÖNEN J., KIVISTÖ S., KOIKKALAINEN J., SMUTEK D., LAUERMA K., "Statistical shape model of atria, ventricles and epicardium from short- and long-axis MR images", *Medical Image Analysis*, vol. 8, p. 371-386, 2004.

[LU 07] LU H., WOODS J., GHANBARI M., "Binary Partition Tree Analysis Based on Region Evolution and Its Application to Tree Simplification", *IEEE Transactions on Image Processing*, vol. 4, p. 1131-1138, April 2007.

[MAD 06a] MADI K., Influence de la morphologie tridimensionnelle des phases sur le comportement mécanique de réfractaires électrofondus, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 2006.

[MAD 06b] MADI K., FOREST S., BOUSSUGE M., GAILLIÈGUE S., LATASTE E., BUFFIÈRE J., BERNARD D., JEULIN D., "Influence de la morphologie tridimensionnelle sur le comportement mécanique de ré fractaires électrofondus.", *Matériaux 2006*, Dijon, France, 13-17 November 2006.

[MAD 06c] MADI K., FOREST S., JEULIN D., BOUSSUGE M., "Estimating RVE sizes for 2D/3D viscoplastic composite materials", *Matériaux 2006*, Dijon, France, November 2006.

[MAL 89] MALING D., *Measurements from maps: principles and methods of cartometry*, Pergamon Press, Oxford, 1989.

[MAL 93] MALANDAIN G., BERTRAND G., AYACHE N., "Topological segmentation of discrete surfaces", *Int Journal of Comp Vision*, vol. 10, num. 2, p. 183-197, 1993.

[MAL 98] MALANDAIN G., FERNÁNDEZ-VIDAL S., "Euclidean skeletons", *Image and Vision Computing*, vol. 16, p. 317-327, 1998.

[MAL 99] MALLAT S., *A Wavelet Tour of Signal Processing*, Academic Press, San Diego, CA, 1999.

[MAN 83] MANDELBROT B., *The fractal geometry of nature*, W.H. Freemann and Company, New York, 1983.

[MAN 00] MANZANERA A., Vision Artificielle Rétinienne, doctoral dissertation, Ecole Nationale Supérieure des Télécommunications, 2000.

[MAN 02] MANZANERA A., BERNARD T., PRÊTEUX F., LONGUET B., "N-dimensional skeletonization: a unified mathematical framework", *Journal of Electronic Imaging*, vol. 11, num. 25, p. 25-37, SPIE, 2002.

[MAR 86] MARAGOS P., SCHAFER R., "Morphological skeletons representation and coding of binary images", *IEEE Transactions on Acoustics, Speech, and Signal Processing*, vol. 34, num. 5, p. 1228-1244, October 1986.

[MAR 89] MARAGOS P., "Pattern spectrum and multiscale shape representation", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 11, num. 7, p. 701-716, July 1989.

[MAR 94] MARAGOS P., "Morphological systems: slope transforms and max-min difference and differential equations", *EURASIP Signal Processing*, vol. 38, num. 1, p. 57-77, September 1994.

[MAR 95] MARAGOS P., "Slope transforms: theory and application to nonlinear signal processing", *IEEE Transactions on Signal Processing*, vol. 43, p. 864-877, April 1995.

[MAR 96a] MARAGOS P., "Differential Morphology and Image-Processing", *IEEE Transactions on Image Processing*, vol. 5, num. 6, p. 922-937, 1996.

[MAR 96b] MARCOTEGUI B., Segmentation de séquences d'images en vue du codage, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1996.

[MAR 97] MARCOTEGUI B., MEYER F. G., "Bottom-up segmentation of image sequences for coding", *Annales des Télécommunications*, vol. 52, num. 7/8, July 1997.

[MAR 99] MARAGOS P., MEYER F., "Nonlinear PDEs and numerical algorithms for modeling levelings and reconstruction filters", *Scale-Space Theories in Computer Vision*, vol. 1682 of *Lecture Notes in Computer Science*, p. 363-374, Springer, 1999.

[MAR 00] MARAGOS P., "Differential morphology", MITRA S., SICURANZA G., Eds., *Nonlinear Image Processing*, Chapter 13, Academic Press, 2000.

[MAR 05] MARAGOS P., "Lattice image processing: a unification of morphological and fuzzy algebraic systems", *Journal of Mathematical Imaging and Vision*, vol. 22, p. 333-353, 2005.

[MAS 04] MASSON J., SOILLE P., MUELLER R., "Tests with VHR images for the identification of olive trees and other fruit trees in the European Union", OWE M., D'URSO G., Eds., *Proc. of Remote Sensing for Agriculture, Ecosystems, and Hydrology VI*, vol. 5568, p. 23-36, Society of Photo-Instrumentation Engineers, Bellingham, September 2004.

[MAT 65] MATHERON G., *Les variables régionalisées et leur estimation*, Masson, Paris, 1965.

[MAT 67] MATHERON G., *Eléments pour une théorie des milieux poreux*, Masson, Paris, 1967.

[MAT 71] MATHERON G., *The theory of regionalized variables and its applications*, Publications of the École des Mines de Paris, 1971.

[MAT 73] MATHERON G., "The intrinsic random functions and their applications", *Advances in applied probability*, vol. 5, p. 439-468, 1973.

[MAT 75] MATHERON G., *Random sets and integral geometry*, John Wiley & Sons, New York, 1975.

[MAT 88a] MATHERON G., "Example of topological properties of skeletons", SERRA J., Ed., *Image Analysis and Mathematical Morphology*, vol. 2, Theoretical Advances, p. 217-238, Academic Press, London, 1988.

[MAT 88b] MATHERON G., "Filters and Lattices", SERRA J., Ed., *Image analysis and mathematical morphology. Volume 2: Theoretical advances*, Chapter 6, p. 115-140, Academic Press, 1988.

[MAT 88c] MATHERON G., "On the negligibility of the skeleton", SERRA J., Ed., *Image Analysis and Mathematical Morphology*, vol. 2, Theoretical Advances, p. 239-256, Academic Press, London, 1988.

[MAT 88d] MATHERON G., SERRA J., "Strong filters and connectivity", SERRA J., Ed., *Image Analysis and Mathematical Morphology*, vol. 2, Theoretical Advances, Chapter 7, p. 141-158, Academic Press, London, UK, 1988.

[MAT 89] MATHERON G., *Estimating and choosing - An essay on probability in practice*, Springer, Berlin, 1989.

[MAT 92] MATTIOLI J., SCHMITT M., "Inverse problems for granulometries by erosions", *Journal of Mathematical Imaging and Vision*, vol. 2, num. 3, p. 217-232, 1992.

[MAT 96] MATHERON G., Treillis compacts et treillis coprimaires, Technical report num. N-5/96/G, École Nationale Supérieure des Mines de Paris, 1996.

[MAT 97] MATHERON G., Les nivellements, Technical report, École Nationale Supérieure des Mines de Paris, 1997.

[MAT 02] MATHERON G., SERRA J., "The birth of mathematical morphology", TALBOT H., BEARE R., Eds., *Proceedings of 6th International Symposium on Mathematical Morphology*, p. 1-16, Commonwealth Scientific and Industrial Research Organisation, Sydney, Australia, April 2002.

[MAU 03] MAURER C., QI R., RAGHAVAN V., "A linear time algorithm for computing exact euclidean distance transforms of binary images in arbitrary dimensions", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 25, num. 2, p. 265-270, 2003.

[MAX 70] MAXWELL J., "On Hills and Dales", *Philosophical Magazine*, December 1870.

[MCI 95] MCINERNEY T., TERZOPOULOS D., "A dynamic finite element surface model for segmentation and tracking in multidimensional medical images with application to cardiac 4D image analysis", *Computerized Medical Imaging and Graphics*, vol. 19, p. 69-83, 1995.

[MCS 34] MC SHANE E., "Extension of range of functions", *Bull. AMS*, vol. 40, p. 837-842, 1934.

[MEC 05] MECKE K., STOYAN D., "The Boolean model : from Matheron till today", *Space, Structures, and Randomness, Contributions in Honor of Georges Matheron in the Fields of*

Geostatistics, Random Sets, and Mathematicel Morphology, vol. 183 of *Lecture Notes in Statistics*, p. 151-182, Springer, Fontainebleau, France, 2005.

[MEE 96] MEESTER R., ROY R., *Continuum percolation*, Cambridge University Press, Cambridge, 1996.

[MEH 99] MEHNERT A., JACKWAY P., "On computing the exact euclidean distance transform on rectangular and hexagonal grids", *Journal of Mathematical Imaging and Vision*, vol. 11, num. 3, p. 223-230, 1999.

[MEI 00] MEIJSTER A. C., ROERDINK J. B. T. M., HESSELINK W. H., "A general algorithm for computing distance transforms in linear time", GOUTSIAS J., VINCENT L., BLOOMBERG D., Eds., *Mathematical morphology and its applications to image and signal processing, proceedings of the 5th ISMM*, vol. 18 of *Computational Imaging and Vision*, p. 331-340, Kluwer Academic Publishers, Palo Alto, CA, USA, 2000.

[MEI 02] MEIJSTER A., WILKINSON M., "A comparison of algorithms for connected set openings and closings", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 24, num. 4, p. 484-494, 2002.

[MEN 42] MENGER K., "Statistical Metrics", *Proc. National Academy of Siences*, vol. 28, p. 535-537, 1942.

[MER 94] MERRIMAN B., BENCE J., OSHER S., "Motion of multiple junctions: a level set approach", *Journal of Computational Physics*, vol. 112, p. 334-363, 1994.

[MEY 79] MEYER F., Cytologie quantitative et morphologie mathématique, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1979.

[MEY 89] MEYER F., SERRA J., "Contrasts and activity lattice", *Signal Processing*, vol. 16, p. 303-317, 1989.

[MEY 90a] MEYER F., Algorithmes à base de files d'attente hiérarchique, Technical report num. NT-46/90/MM, École Nationale Supérieure des Mines de Paris, September 1990.

[MEY 90b] MEYER F., BEUCHER S., "Morphological segmentation", *Journal of Visual Communication and Image Representation*, vol. 1, num. 1, p. 21-46, September 1990.

[MEY 91] MEYER F., "Un algorithme optimal de ligne de partage des eaux", *Reconnaissance des Formes et Intelligence Artificielle, 8e congrès*, p. 847-857, AFCET, Lyon-Villeurbanne, 1991.

[MEY 94a] MEYER F., "Minimum Spanning Forests for Morphological Segmentation", *Procs. of the second international conference on Mathematical Morphology and its Applications to Image Processing*, p. 77-84, September 1994.

[MEY 94b] MEYER F., "Topographic distance and watershed lines", *Signal Processing*, vol. 38, num. 1, p. 113-125, July 1994.

[MEY 96] MEYER F., "A morphological interpolation method for mosaic images", MARAGOS P., SCHAFER R., BUTT M., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, p. 337-344, Kluwer Academic Publishers, Boston, 1996.

[MEY 97] MEYER F., OLIVERAS A., SALEMBIER P., VACHIER C., "Morphological tools for segmentations: connected filters and watershed", *Annals of Telecommunications*, vol. 52, num. 7, p. 367-379, 1997.

[MEY 98a] MEYER F., "From connected operators to levelings", HEIJMANS H., ROERDINK J., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, vol. 12 of *Computational Imaging and Vision*, p. 191-198, Kluwer Academic Publishers, Dordrecht, 1998.

[MEY 98b] MEYER F., "The levelings", HEIJMANS H., ROERDINK J., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, vol. 12 of *Computational Imaging and Vision*, p. 199-206, Kluwer Academic Publishers, Dordrecht, 1998.

[MEY 00a] MEYER F., "Vectorial levelings and flattenings", *Proceedings of the 5th International Symposium on Mathematical morphology and its applications to image and signal processing*, p. 51-60, Kluwer Academic Publishers, 2000.

[MEY 00b] MEYER F., MARAGOS P., "Nonlinear scale-space representation with morphological levelings", *Journal of Visual Communication and Image Representation*, vol. 11, num. 3, p. 245-265, 2000.

[MEY 02] MEYER F., "Alpha-Beta flat zones, levelings and flattenings", *Mathematical Morphology, Proceedings of the 6th International Symposium*, p. 47-68, CSIRO, April 2002.

[MIL 75] MILES R. E., "On the elimination of edge effects in planar sampling", HARDING E., KENDALL D., Eds., *Stochastic Geometry*, p. 228-247, John Wiley & Sons, London, 1975.

[MIL 76] MILES R., "Estimating aggregate and overall characteristics from thick sections by transmission microscopy", *Journal of Microscopy*, vol. 107, p. 227-33, 1976.

[MIN 03] MINKOWSKI H., "Volumen und Oberfläche", *Mathematische Annalen*, vol. 57, p. 447-495, 1903.

[MIN 01] MINKA T. P., BLOOMBERG D. S., POPAT A., "Document image decoding using iterated complete path search", *SPIE Conf. 4307, Document Recognition and Retrieval VIII*, p. 250-258, 2001.

[MIT 97] MITCHELL S. C., LELIEVELDT B. P. F., VAN DER GEEST R. J., BOSCH H. G., REIBER J. H. C., SONKA M., "Multistage Hybrid Active Appearance Model Matching: Segmentation of Left and Right Ventricles in Cardiac MR Images", *IEEE Trans. on Medical Imaging*, vol. 20, p. 415-423, 1997.

[MOL 97] MOLCHANOV I., *Statistics of the Boolean model for practitioners and mathematicians*, John Wiley & Sons, 1997.

[MOL 05] MOLCHANOV I., "Random closed sets", *Space, Structures, and Randomness, Contributions in Honor of Georges Matheron in the Fields of Geostatistics, Random Sets, and Mathematicel Morphology*, vol. 183 of *Lecture Note in Statistics*, p. 135-149, Springer, 2005.

[MON 68] MONTANARI U., "A method for obtaining skeletons using a quasi-Euclidean distance", *Communications of the ACM*, vol. 15, num. 4, p. 600-624, October 1968.

[MON 88] MONGA O., Segmentation d'Images par Croissance Hiérarchique de Régions, doctoral dissertation, University of Paris Sud, Orsay, 1988.

[MON 00] MONASSE P., GUICHARD F., "Fast computation of a contrast-invariant image representation", *IEEE Transactions on Image Processing*, vol. 5, num. 9, p. 860–872, 2000.

[MON 05] MONTAGNAT J., DELINGETTE H., "4D deformable models with temporal constraints: application to 4D cardiac image segmentation", *Medical Image Analysis*, vol. 9, p. 87-100, 2005.

[MOO 10] MOORE E., *Introduction to a Form of General Analysis*, vol. 2 of *American Mathematical Society Colloquium Publications*, American Mathematical Society, New Haven, 1910.

[MOO 65] MOORE G., "Cramming more components onto integrated circuits", *Electronics*, vol. 38, num. 8, p. 114-117, April 1965.

[MOR 86] MORRIS O., LEE M., CONSTANTINIDIES A., "Graph theory for image analysis: an approach based on the shortest spanning tree", *IEE Proceedings, F*, vol. 133, num. 2, p. 146-152, April 1986.

[MOR 96] MOREAU P., RONSE C., "Generation of shading-off in images by extrapolation of Lipschitz functions", *Graphical Models and Image Processing*, vol. 58, num. 4, p. 314-333, 1996.

[MOR 04] MORROS J., Optimization of Segmentation-Based Video Sequence Coding Techniques. Application to Content-Based Functionalities, PhD thesis, Universitat Politècnica de Catalunya, Barcelona, Spain, 2004.

[MOR 06] MOREAUD M., Propriétés morphologiques multi-échelles et prévision du comportement diélectrique de nanocomposites, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 2006.

[MOR 08] MORENO A., TAKEMURA C. M., COLLIOT O., CAMARA O., BLOCH I., "Using anatomical knowledge expressed as fuzzy constraints to segment the heart in CT images,", *Pattern Recognition*, vol. 41, num. 8, p. 2525–2540, August 2008.

[MOU 98] MOULINEC H., SUQUET P., "A numerical method for computing the overall response of nonlinear composites with complex microstructure", *Computer Methods in applied Mechanics and Engineering*, vol. 157, p. 69-94, 1998.

[MOU 08] MOULIN N., Modélisation numérique de la fragmentation de particules de formes complexes avec une application au laminage des alliages d'aluminium, doctoral dissertation, École Nationale Supérieure des Mines de Saint-Etienne, February 2008.

[MOU 09] MOULIN N., JEULIN D., H. K., "Stress concentrations in non-convex elastic particles embedded in a ductile matrix", *International Journal of Engineering Science*, vol. 47, num. 2, p. 170-191, 2009.

[NAC 94] NACKEN P., "Chamfer metrics in mathematical morphology", *Journal of Mathematical Imaging and Vision*, vol. 4, p. 233-253, 1994.

[NAC 96] NACKEN P., "Chamfer metrics, the medial axis and mathematical morphology", *Journal of Mathematical Imaging and Vision*, vol. 6, num. 2/3, p. 235-248, 1996.

[NAC 00] NACHTEGAEL M., KERRE E. E., "Classical and Fuzzy Approaches towards Mathematical Morphology", KERRE E. E., NACHTEGAEL M., Eds., *Fuzzy Techniques in Image Processing*, Studies in Fuzziness and Soft Computing, Chapter 1, p. 3-57, Physica-Verlag, Springer, 2000.

[NAE 05] NAEGEL B., RONSE C., SOLER L., "Using grey-scale hit-or-miss transform for segmenting the portal network of the liver", RONSE C., NAJMAN L., DECENCIÈRE E., Eds., *Mathematical Morphology: 40 years on. Proceedings of the 7th International Symposium on Mathematical Morphology*, vol. 30 of *Computational Imaging and Vision*, p. 429-440, Springer SBM, 2005.

[NAE 07a] NAEGEL B., "Using mathematical morphology for the anatomical labeling of vertebrae from 3D CT-scan images", *Computerized Medical Imaging and Graphics*, vol. 31, num. 3, p. 141-156, 2007.

[NAE 07b] NAEGEL B., PASSAT N., RONSE C., "Grey-level hit-or-miss transforms - Part I: Unified theory", *Pattern Recognition*, vol. 40, num. 2, p. 635-647, 2007.

[NAE 07c] NAEGEL B., PASSAT N., RONSE C., "Grey-level hit-or-miss transforms Part II: application to angiographic image processing", *Pattern Recognition*, vol. 40, num. 2, p. 648-658, 2007.

[NAG 79] NAGAO M., MATSUYAMA T., IKEDA Y., "Region extraction and shape analysis in aerial photographs", *Computer Graphics and Image Processing*, vol. 10, num. 3, p. 195-223, July 1979.

[NAJ 93] NAJMAN L., SCHMITT M., "Definitions and some properties of the watershed of a continuous function", SERRA J., SALEMBIER P., Eds., *Mathematical morphology and its applications to signal processing*, p. 76-81, 1993.

[NAJ 94a] NAJMAN L., Morphologie Mathématique : de la Segmentation d'Images à l'Analyse Multivoque, doctoral dissertation, University of Paris Dauphine, April 1994.

[NAJ 94b] NAJMAN L., SCHMITT M., "Watershed of a continuous function", *Signal Processing*, vol. 38, num. 1, p. 99-112, Elsevier North-Holland, Inc., 1994.

[NAJ 96] NAJMAN L., SCHMITT M., "Geodesic Saliency of Watershed Contours and Hierarchical Segmentation", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 18, num. 12, p. 1163-1173, December 1996.

[NAJ 04] NAJMAN L., "Using mathematical morphology for document skew estimation", *SPIE Conf. 5296, Document Recognition and Retrieval XI*, p. 182-191, 2004.

[NAJ 05] NAJMAN L., COUPRIE M., BERTRAND G., "Watersheds, mosaics and the emergence paradigm", *Discrete Applied Mathematics, special issue on Discrete Geometry*, vol. 147, num. 2-3, p. 301-324, April 2005.

[NAJ 06] NAJMAN L., COUPRIE M., "Building the component tree in quasi-linear time", *IEEE Transactions on Image Processing*, vol. 15, num. 11, p. 3531-3539, 2006.

[NAJ 09a] NAJMAN L., Ultrametric watersheds: a bijection theorem for hierarchical edge-segmentation, Technical report num. IGM 2009-10, University of Paris-Est, Institut d'Informatique Gaspard Monge, 2009.

[NAJ 09b] NAJMAN L., "Ultrametric watersheds", SPRINGER, Ed., *Proceedings of the 9th International Symposium on Mathematical Morphology*, vol. 5720 of *Lecture Notes in Computer Science*, p. 181–192, 2009.

[NAK 93] NAKATSUYAMA M., "Fuzzy mathematical morphology for image processing", *ANZIIS-93*, p. 75-79, Perth, Australia, 1993.

[NGU 03] NGUYEN H. T., WORRING M., VAN DEN BOOMGAARD R., "Watersnakes: Energy-Driven Watershed Segmentation", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 25, num. 3, p. 330-342, IEEE Computer Society, 2003.

[ORE 42] ORE O., "Theory of equivalence relations", *Duke Math. J.*, vol. 9, p. 573-627, 1942.

[ORE 43] ORE O., "Combinations of closure relations", *Annals of Mathematics*, vol. 44, num. 3, p. 514-533, 1943.

[ORE 44] ORE O., "Galois connexions", *Trans. Amer. Math. Soc.*, vol. 55, p. 493-513, 1944.

[OSH 88] OSHER S., SETHIAN J., "Fronts propagating with curvature-dependent speed: Algorithms based on the Hamilton-Jacobi formulation", *J. Comput. Phys.*, vol. 79, num. 1, p. 12-49, 1988.

[OUZ 07] OUZOUNIS G., WILKINSON M. H. F., "Mask-Based Second Generation Connectivity and Attribute Filters", *IEEE Transactions on Pattern Analysis Machine Intelligence*, vol. 29, num. 2, p. 990-1004, 2007.

[PAC 03] PACIORNIK S., GOMES O., DELARUE A., SCHAMM S., JEULIN D., THOREL A., "Multi-scale analysis of the dielectric properties and structure of resin/carbon-black nanocomposites", *European Physical Journal-Applied Physics*, vol. 21, p. 17-26, 2003.

[PAR 95] PARDÀS M., Segmentación Morfológica de Secuencias de Imágenes: Aplicación a la Codificación, doctoral dissertation, Universidad Politécnica de Cataluña, Barcelona, Spain, January 1995.

[PAR 05] PARRA-DENIS E., DUCOTTET C., JEULIN D., "3D image analysis of intermetallic inclusions", *Proceedings of the 9th European Congress for Stereology*, Zakopane, Poland, May 2005.

[PAR 06] PARRA-DENIS E., JEULIN D., "Modélisation morphologique 3D des particules intermétalliques dans les alliages d'aluminium.", *Matériaux 2006*, Dijon, France, November 2006.

[PAR 07a] PARRA-DENIS E., Analyse morphologique 3D de particules de forme complexe: application aux intermétaliques dans les alliages d'aluminium, doctoral dissertation, Jean Monnet University, Saint-Etienne, France, February 2007.

[PAR 07b] PARRA-DENIS E., MOULIN N., JEULIN D., "Three Dimensional complex shapes analysis from 3D local curvature measurements: application to intermetallic particles in Aluminium alloy 5XXX", *communication to ICS XII*, vol. 26 of *Image Analysis and Stereology*, p. 157-164, Saint-Etienne, France, September 2007.

[PAR 08] PARRA-DENIS E., BARAT C., DUCOTTET C., JEULIN D., "3D Complex Shape Characterization by Statistical Analysis: Application to Aluminium Alloys", *Materials Characterization*, vol. 59, p. 338-343, 2008.

[PAS 05] PASSAT N., RONSE C., BARUTHIO J., ARMSPACH J., MAILLOT C., "Cerebral vascular atlas generation for anatomical knowledge modeling and segmentation purpose", SCHMID C., SOATTO S., TOMASI C., Eds., *IEEE CVPR'05, Proceedings*, vol. 2, p. 331-337, 2005.

[PAS 06] PASSAT N., RONSE C., BARUTHIO J., ARMSPACH J., MAILLOT C., "Magnetic resonance angiography: From anatomical knowledge modeling to vessel segmentation", *Medical Image Analysis*, vol. 10, num. 2, p. 259-274, 2006.

[PAS 07] PASSAT N., RONSE C., BARUTHIO J., ARMSPACH J., FOUCHER J., "Watershed and multimodal data for vessel segmentation: application to the superior sagittal sinus", *Image and Vision Computing*, vol. 25, num. 4, p. 512-521, 2007.

[PAT 98] PATEUX S., Segmentation spatio-temporelle et codage orienté régions de séquences vidéo basés sur le formalisme MDL, doctoral dissertation, University of Rennes 1, Rennes, 1998.

[PAV 77] PAVLIDIS, *Structural Pattern Recognition*, Springer, Berlin, 1977.

[PAW 82] PAWLAK Z., "Rough Sets", *International Journal of Information and Computer Science*, vol. 11, num. 5, p. 341-356, 1982.

[PES 01] PESARESI M., BENEDIKTSSON J., "A new approach for the morphological segmentation of high resolution satellite imagery", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 39, num. 2, p. 309-320, February 2001.

[PET 97] PETTERS R., "Mathematical morphology for angle-valued images", *Proc. of Non-Linear Image Processing VIII*, vol. SPIE 3026, p. 84-94, 1997.

[PHI 10] PHILIPP-FOLIGUET S., JORDAN M., NAJMAN L., COUSTY J., "Artwork 3D Model Database Indexing and Classification", *Pattern Recognition*, 2010, to appear.

[PIK 02] PIKE R., A bibliography of terrain modelling (geomorphometry), the quantitative representation of topography–Supplement 4.0, Technical report num. 02-465, United States Geological Survey, 2002.

[PIT 91] PITAS I., TSAKALIDES P., "Multivariate ordering in color image processing", *IEEE Transactions. Circuits Systems Video Technol.*, vol. 1, num. 3, p. 247-256, 1991.

[PLA 02] PLAZA A., MARTINEZ P., PEREZ R., PLAZA J., "Spatial/Spectral Endmember Extraction by Multidimensional Morphological Operations", *IEEE Transactions on Geosciences and Remote Sensing*, vol. 40, num. 9, p. 2025–2041, 2002.

[POP 95] POPOV A. T., "Morphological operations on fuzzy sets", *IEE Image Processing and its Applications*, p. 837-840, Edinburgh, UK, July 1995.

[POS 88] POSTL W., Method for automatic correction of character skew in the acquisition of a text original in the form of digital scan results, Technical report, U.S. Patent 4,723,297, February 1988.

[PRA 90] PRASAD B., LANTUÉJOUL C., JERNOT J., "Use of the shell correction for the quantification of three-dimensional images", *Trans. Royal Microsc. Soc.*, vol. 161-3, p. 387-403, 1990.

[PRE 77] PRESTON C., "Spatial Birth-and-death process", *Bull. Int. Stat. Inst.*, vol. 46, p. 371-391, 1977.

[PRE 92] PRESS W. H., FLANNERY B., TEUKOLSKY S., WETTERLING W., *Numerical recipes in C: The art of scientific computing*, Cambridge University Press, Cambridge, 1992.

[PRI 57] PRIM R. C., "Shortest connection networks and some generalisations", *Bell System Technical Journal*, vol. 36, p. 1389-1401, 1957.

[PUD 98] PUDNEY C., "Distance-ordered homotopic thinning: a skeletonization algorithm for 3D digital images", *Computer Vision and Image Understanding*, vol. 72, num. 3, p. 404-413, 1998.

[RAG 92] RAGNEMALM I., "Fast erosion and dilation by contour processing and thresholding of distance maps", *Pattern Recognition Letters*, vol. 13, p. 161-166, 1992.

[RAG 93] RAGNEMALM I., "The euclidean distance transform in arbitrary dimensions", *Pattern Recognition Letters*, vol. 14, num. 11, p. 883 - 888, 1993.

[RAN 52] RANEY G., "Completely distributive complete lattices", *Proceedings of the American Mathematical Society*, vol. 3, p. 677-680, 1952.

[RAN 92] RANDELL D., CUI Z., COHN A., "A Spatial Logic based on Regions and Connection", NEBEL B., RICH C., SWARTOUT W., Eds., *Principles of Knowledge Representation and Reasoning KR'92*, p. 165-176, Kaufmann, San Mateo, CA, USA, 1992.

[RÉM 05] RÉMY E., THIEL E., "Exact medial axis with euclidean distance", *Image and Vision Computing*, vol. 23, num. 2, p. 167-175, 2005.

[REN 08] RENARD N., BOURENNANE S., BLANC-TALON J., "Denoising and dimensionality reduction using multilinear tools for hyperspectral image", *IEEE Transactions on Geosciences and Remote Sensing*, vol. 5, num. 2, p. 138–142, April 2008.

[REV 91] REVEILLÈS J., Géométrie discrète, calculs en nombres entiers et algorithmique, Thèse d'État, University of Strasbourg, 1991.

[RIC 06] RICHARDS J., JIA X., *Remote sensing digital image analysis: an introduction*, third edition, Springer-Verlag, 2006.

[RII 07] RIITTERS K., VOGT P., SOILLE P., KOZAK J., ESTREGUIL C., "Neutral model analysis of landscape patterns from mathematical morphology", *Landscape Ecology*, vol. 22, num. 7, p. 1033-1043, August 2007.

[RIN 87] RINTOUL M., TORQUATO S., "Precise determination of the critical threshold and exponents in a three-dimensional continuum percolation model", *J. Phys. A*, vol. Math. Gen. 30, p. L585-L592, 1987.

[RIN 00] RINTOUL M., "Precise determination of the void percolation threshold for two distributions of overlapping spheres", *Physical Review E*, vol. 62, num. 1, p. 68-72, 2000.

[RIV 87] RIVIÈRE A., Classification des points d'un ouvert d'un espace euclidien relativement à la distance au bord, étude topologique et quantitative des classes obtenues, doctoral dissertation, University of Paris-Sud Orsay, November 1987.

[RIV 93] RIVEST J., SOILLE P., BEUCHER S., "Morphological gradients", *Journal of Electronic Imaging*, vol. 2, num. 4, p. 326-336, October 1993.

[ROE 01] ROERDINK J. B. T. M., MEIJSTER A., "The Watershed Transform: Definitions, Algorithms and Parallelization Strategies", *Fundamenta Informaticae*, vol. 41, num. 1-2, p. 187-228, 2001.

[RON 88] RONSE C., "Minimal test patterns for connectivity preservation in parallel thinning algorithms for binary digital images", *Discrete Applied Mathematics*, vol. 21, num. 1, p. 67-79, 1988.

[RON 91] RONSE C., HEIJMANS H., "The algebraic basis of mathematical morphology: II. Openings and closings", *Computer Vision, Graphics, and Image Processing: Image Understanding*, vol. 54, num. 1, p. 74-97, 1991.

[RON 96] RONSE C., "A lattice-theoretical morphological view on template extraction in images", *Journal of Visual Communication and Image Representation*, vol. 7, num. 3, p. 273-295, September 1996.

[RON 98] RONSE C., "Set-theoretical algebraic approaches to connectivity in continuous or digital spaces", *Journal of Mathematical Imaging and Vision*, vol. 8, num. 1, p. 41-58, 1998.

[RON 06] RONSE C., "Flat morphology on power lattices", *Journal of Mathematical Imaging and Vision*, vol. 26, num. 1/2, p. 185-216, 2006.

[RON 08] RONSE C., "Partial partitions, partial connections and connective segmentation", *Journal of Mathematical Imaging and Vision*, vol. 32, num. 2, p. 97-125, Springer, October 2008.

[ROS 66] ROSENFELD A., PFALTZ J., "Sequential operations in digital picture processing", *Journal of the ACM*, vol. 13, num. 4, p. 471-494, 1966.

[ROS 68] ROSENFELD A., "Distance functions on digital pictures", *Pattern Recognition*, vol. 1, p. 33-61, 1968.

[ROS 70] ROSENFELD A., "Connectivity in digital pictures", *Journal of the Association for Computer Machinery*, vol. 17, p. 146-160, 1970.

[ROS 73] ROSENFELD A., "Arcs and curves in digital pictures", *Journal of the Association for Computer Machinery*, vol. 20, p. 81-87, 1973.

[ROS 75] ROSENFELD A., "A converse to the Jordan curve theorem for digital curves", *Information and Control*, vol. 29, p. 292-293, 1975.

[ROS 83] ROSENFELD A., "On connectivity properies of grayscale pictures", *Pattern Recognition*, vol. 16, p. 47-50, 1983.

[ROS 84] ROSENFELD A., "The fuzzy geometry of image subsets", *Pattern Recognition Letters*, vol. 2, p. 311-317, 1984.

[ROS 85a] ROSENFELD A., "Distances between fuzzy sets", *Pattern Recognition Letters*, vol. 3, p. 229-233, 1985.

[ROS 85b] ROSENFELD A., KLETTE R., "Degree of Adjacency or Surroundness", *Pattern Recognition*, vol. 18, num. 2, p. 169-177, 1985.

[SAI 94] SAITO T., TORIWAKI J., "New algorithms for Euclidean distance transformation of an n-dimensional digitized picture with applications", *Pattern Recognition*, vol. 27, p. 1551-1565, 1994.

[SAI 96] SAID A., PEARLMAN W., "A New Fast and Efficient Image Codec Based on Set Partitioning in Hierarchical Trees", *IEEE Transactions on on Circuits and Systems for Video Technology*, vol. 6, p. 243-250, June 1996.

[SAL 92] SALEMBIER P., SERRA J., "Morphological Multiscale Image Segmentation", MARAGOS P., Ed., *Visual Communications and Image Processing*, vol. SPIE-1818, p. 620-631, 1992.

[SAL 94a] SALEMBIER P., "Morphological multiscale segmentation for image coding", *Signal Processing*, vol. 38, num. 3, p. 359-386, September 1994.

[SAL 94b] SALEMBIER P., PARDÀS M., "Hierarchical Morphological Segmentation for Image Sequence Coding", *IEEE Transactions on Image Processing*, vol. 3, num. 5, p. 639-651, September 1994.

[SAL 95] SALEMBIER P., SERRA J., "Flat zones filtering, connected operators, and filters by reconstruction", *IEEE Transactions on Image Processing*, vol. 4, num. 8, p. 1153-1160, August 1995.

[SAL 97] SALEMBIER P., MARQUES F., PARDAS M., MORROS J., CORSET I., JEANNIN S., BOUCHARD L., MEYER F., MARCOTEGUI B., "Segmentation-based video coding system allowing the manipulation of objects", *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 7, num. 1, p. 60-74, February 1997.

[SAL 98] SALEMBIER P., OLIVERAS A., GARRIDO L., "Anti-extensive Connected Operators for Image and Sequence Processing", *IEEE Transactions on Image Processing*, vol. 7, num. 4, p. 555-570, April 1998.

[SAL 00] SALEMBIER P., GARRIDO L., "Binary partition tree as an efficient representation for image processing, segmentation and information retrieval", *IEEE Transactions on Image Processing*, vol. 9, num. 4, p. 561-576, April 2000.

[SAL 07] SALEM N., SALEM S., NANDI A., "Segmentation of retinal blood vessels based on analysis of the Hessian matrix and clustering algorithm", *Eurasip Eusipco Proceedings*, p. 428-432, Poznan, Poland, 2007.

[SAN 10] SANGWINE S., ELL T., LE BIHAN N., "Hypercomplex models and processing for vector images", CHANUSSOT J., CHEHDI K., Eds., *Multivariate Image Processing*, Digital Signal and Image Processing, Chapter 13, p. 407–436, John Wiley & Sons, 2010.

[SAP 93] SAPIRO G., KIMMEL R., SHAKED D., KIMIA B., BRUCKSTEIN A., "Implementing continuous-scale morphology via curve evolution", *Pattern Recognition*, vol. 26, num. 9, p. 1363-1372, 1993.

[SAV 99] SAVARY L., JEULIN D., THOREL A., "Morphological analysis of carbon-polymer composite materials from thick sections", *Acta Stereologica*, vol. 18, num. 3, p. 297-303, 1999.

[SCH 63] SCHWEIZER B., SKLAR A., "Associative functions and abstract semigroups", *Publ. Math. Debrecen*, vol. 10, p. 69-81, 1963.

[SCH 83] SCHWEIZER B., SKLAR A., *Probabilistic Metric Spaces*, North Holland, Amsterdam, 1983.

[SCH 86] SCHMITT M., PRÊTEUX F., "Un nouvel algorithme en morphologie mathématique : les r-h maxima et r-h minima", *Actes de la 2ème Semaine Internationale de l'Image Electronique*, p. 469-475, April 1986.

[SCH 89] SCHMITT M., Des algorithmes morphologiques à l'intelligence artificielle, doctoral dissertation, École Nationale Supérieure des Mines de Paris, February 1989.

[SCH 94] SCHMITT M., MATTIOLI J., *Morphologie Mathématique*, Masson, 1994.

[SER 80] SERRA J., "The Boolean Model and Random Sets", *Computer graphics and Image Processing*, vol. 12, p. 99-126, 1980.

[SER 82] SERRA J., *Image analysis and mathematical morphology*, Academic Press, London, UK, 1982.

[SER 88a] SERRA J., "The centre and self-dual filtering", SERRA J., Ed., *Image analysis and mathematical morphology. Volume 2: Theoretical advances*, Chapter 8, p. 159-180, Academic Press, 1988.

[SER 88b] SERRA J., "Examples of structuring functions and their uses", SERRA J., Ed., *Image analysis and mathematical morphology. Volume 2: Theoretical advances*, Chapter 4, p. 71-99, Academic Press, 1988.

[SER 88c] SERRA J., Ed., *Image analysis and mathematical morphology. Volume 2: Theoretical advances*, Academic Press, London, UK, 1988.

[SER 88d] SERRA J., "Mathematical Morphology for Boolean lattices", SERRA J., Ed., *Image analysis and mathematical morphology. Volume 2: Theoretical advances*, Chapter 2, p. 37-58, Academic Press, 1988.

[SER 89] SERRA J., "Boolean random functions", *Journal of Microscopy*, vol. 156, p. 41-63, 1989.

[SER 92a] SERRA J., "Anamorphoses and Function Lattices (Multivalued Morphology)", DOUGHERTY, Ed., *Mathematical Morphology in Image Processing*, p. 483-523, Marcel-Dekker, 1992.

[SER 92b] SERRA J., "Equicontinuous functions, a model for mathematical morphology", *Non-linear Algebra and Morphological Image Processing*, vol. 1769 of *Proceedings*, p. 252-263, SPIE, San Diego, CA, USA, 1992.

[SER 92c] SERRA J., VINCENT L., "An overview of morphological filtering", *Circuits Systems Signal Process*, vol. 11, num. 1, p. 47-108, 1992.

[SER 93a] SERRA J., SALEMBIER P., "Connected operators and pyramids", DOUGHERTY E., GADER P., SERRA J., Eds., *Image algebra and morphological image processing IV*, vol. SPIE-2030, p. 65-76, July 1993.

[SER 93b] SERRA J., SALEMBIER P., Eds., *Mathematical morphology and its applications to signal processing*, Universitat Politècnica de Catalunya, Barcelona, Spain, 1993.

[SER 97] SERRA J., "Equicontinuous random functions", *Journal of Electronic Imaging*, vol. 6, num. 1, p. 7–15, SPIE, January 1997.

[SER 98a] SERRA J., "Connectivity on complete lattices", *Journal of Mathematical Imaging and Vision*, vol. 9, num. 3, p. 231-251, 1998.

[SER 98b] SERRA J., "Hausdorff distance and Interpolations", HEIJMANS H., ROERDINK J., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, vol. 12 of *Computational Imaging and Vision*, p. 107-114, Kluwer Academic Publishers, Dordrecht, June 1998.

[SER 99] SERRA J., "Set connections and discrete filtering", *Proceedings of the 8th international conference on Discrete Geometry for Computer Imagery*, vol. 1568, p. 191-207, Springer, 1999.

[SER 00] SERRA J., "Connections for sets and functions", *Fundamenta Informaticae*, vol. 41, num. 1/2, p. 147-186, 2000.

[SER 01] SERRA J., "Lecture Notes on Morphological Operators", *First French-Nordic Summer School in Mathematics*, Lake Erken, Sweden, 2001.

[SER 02] SERRA J., Lattices of numerical functions, Technical report num. C-06/02/MM, École Nationale Supérieure des Mines de Paris, 2002.

[SER 05a] SERRA J., "Morphological operators for the segmentation of colour images", *Lecture Notes in Statistics*, vol. 183, p. 223-256, 2005.

[SER 05b] SERRA J., "Morphological Segmentations of Colour Images", RONSE C., NAJMAN L., DECENCIÈRE E., Eds., *Mathematical Morphology: 40 Years On*, vol. 30 of *Computational Imaging and Vision*, p. 151-176, Springer-Verlag, Dordrecht, 2005.

[SER 06] SERRA J., "A lattice approach to image segmentation", *Journal of Mathematical Imaging and Vision*, vol. 24, num. 1, p. 83-130, 2006.

[SER 09] SERRA J., "The Random Spread Model", PASSARE M., Ed., *Complex Analysis and Digital Geometry*, p. 283-310, Uppsala Universitet, 2009.

[SET 96a] SETHIAN J., "A Fast Marching Level Set Method for Monotonically Advancing Fronts", *Proceedings of the National Academy of Sciences*, vol. 93(4), p. 1591-1595, 1996.

[SET 96b] SETHIAN J., *Level Set Methods: Evolving Interfaces in Geometry, Fluid Mechanics, Computer Vision, and Materials Science*, Cambridge University Press, Cambridge, 1996.

[SET 01] SETHIAN J., VLADIMIRSKY A., "Ordered upwind methods for static Hamilton-Jacobi equations", *Proceedings of the National Academy of Science*, vol. 98, num. 20, p. 11069-11074, 2001.

[SHI 72] SHINOZUKA M., JAN C., "Digital simulation of random processes and its applications", *Journal of Sound and Vibration*, vol. 25-1, p. 111-128, 1972.

[SHI 92] SHIH F. Y., MITCHELL O. R., "A mathematical morphology approach to Euclidean distance transformation", *IEEE Transactions on Image Processing*, vol. 1, p. 197-204, 1992.

[SHO 88] SHOHAM Y., GERSHO A., "Efficient Bit Allocation for an Arbitrary Set of Quantizers", *IEEE Transactions on Acoustics, Speech, and Signal Processing*, vol. 36, p. 1445-1453, September 1988.

[SID 99] SIDDIQI K., BOUIX S., TANNENBAUM A., ZUCKER S., "The Hamilton-Jacobi Skeleton", *International Conference on Computer Vision (ICCV)*, p. 828-834, Corfu, Greece, 1999.

[SIN 93] SINHA D., DOUGHERTY E. R., "Fuzzification of Set Inclusion: Theory and Applications", *Fuzzy Sets and Systems*, vol. 55, p. 15-42, 1993.

[SLE 85] SLEADOR D., TARJAN R., "Self-adjusting Binary Search Trees", *J. Assoc. Comp. Mach.*, vol. 32, p. 652-686, 1985.

[SOI 90] SOILLE P., ANSOULT M., "Automated basin delineation from Digital Elevation Models using mathematical morphology", *Signal Processing*, vol. 20, p. 171-182, June 1990.

[SOI 91] SOILLE P., "Spatial distributions from contour lines: an efficient methodology based on distance transformations", *Journal of Visual Communication and Image Representation*, vol. 2, num. 2, p. 138-150, June 1991.

[SOI 92] SOILLE P., RIVEST J., SERRA J., "Dimensionality in image analysis and processing", *Proc. SPIE, Image Science and Technology*, vol. 1658, San Jose, CA, USA, February 1992.

[SOI 94a] SOILLE P., "Generalized geodesy via geodesic time", *Pattern Recognition Letters*, vol. 15, num. 12, p. 1235-1240, December 1994.

[SOI 94b] SOILLE P., GRATIN C., "An efficient algorithm for drainage networks extraction on DEMs", *Journal of Visual Communication and Image Representation*, vol. 5, num. 2, p. 181-189, June 1994.

[SOI 96] SOILLE P., "Morphological Partitioning of Multispectral Images", *Journal of Electronic Imaging*, vol. 5, num. 3, p. 252-265, July 1996.

[SOI 00] SOILLE P., "Morphological phase unwrapping", *Optics and Lasers in Engineering*, vol. 32, num. 4, p. 339-352, 2000.

[SOI 01] SOILLE P., TALBOT H., "Directional morphological filtering", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 23, num. 11, p. 1313-1329, November 2001.

[SOI 02] SOILLE P., PESARESI M., "Advances in mathematical morphology applied to geoscience and remote sensing", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 40, num. 9, p. 2042-2055, September 2002.

[SOI 03a] SOILLE P., *Morphological Image Analysis*, second edition, Springer-Verlag, Heidelberg, 2003.

[SOI 03b] SOILLE P., VOGT J., COLOMBO R., "Carving and adpative drainage enforcement of grid digital elevation models", *Water Resources Research*, vol. 39, num. 12, p. 1366–, December 2003.

[SOI 04a] SOILLE P., "Morphological Carving", *Pattern Recognition Letters*, vol. 25, num. 5, p. 543-550, April 2004.

[SOI 04b] SOILLE P., "Optimal removal of spurious pits in grid digital elevation models", *Water Resources Research*, vol. 40, num. 12, p. W12509–, December 2004.

[SOI 05] SOILLE P., "Beyond self-duality in morphological image analysis", *Image and Vision Computing*, vol. 23, num. 2, p. 249-257, February 2005.

[SOI 06] SOILLE P., "Morphological image compositing", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 28, num. 5, p. 673-683, May 2006.

[SOI 07a] SOILLE P., "From mathematical morphology to morphological terrain features", PECKHAM R., JORDAN G., Eds., *Digital Terrain Modelling*, Lecture Notes in Geoinformation and Cartography, p. 45-66, Springer-Verlag, Berlin, 2007.

[SOI 07b] SOILLE P., "On genuine connectivity relations based on logical predicates", *Proc. of 14th Int. Conf. on Image Analysis and Processing, Modena, Italy*, p. 487-492, IEEE Computer Society Press, September 2007.

[SOI 07c] SOILLE P., GRAZZINI J., "Extraction of river networks from satellite images by combining mathematical morphology and hydrology", *Lecture Notes in Computer Science*, vol. 4673, p. 636-644, August 2007.

[SOI 08a] SOILLE P., "Constrained connectivity for hierarchical image partitioning and simplification", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 30, num. 7, 2008.

[SOI 08b] SOILLE P., BIELSKI C., IMAGE-2006 Mosaic: Automatic Seam Delineation, Technical report, Joint Research Centre of the European Commission, Ispra, Italy, December 2008.

[SOI 09a] SOILLE P., "Recent developments in morphological image processing for remote sensing", BRUZZONE L., BENEDIKTSSON J., SERPICO S., Eds., *Proc. of Image and Signal Processing for Remote Sensing*, vol. SPIE-7477, p. 2-11, 2009, [Invited paper].

[SOI 09b] SOILLE P., VOGT P., "Morphological segmentation of binary patterns", *Pattern Recognition Letters*, vol. 30, num. 4, p. 456-459, March 2009.

[SOI 09c] SOILLE P., GRAZZINI J., "Constrained Connectivity and Transition Regions", *Mathematical Morphology and Its Application to Signal and Image Processing*, p. 59–69, 2009, 2009.

[SPO 05] SPODAREV E., SCHMIDT V., "On the local connectivity number of stationary random closed sets", RONSE C., NAJMAN L., DECENCIÈRE E., Eds., *Mathematical Morphology: 40 years on*, p. 343-354, Springer, Dordrecht, 2005.

[STU 87] STUIK D. J., *A concise history of mathematics*, fourth edition, Dover, 1987.

[SUL 10] SULIMAN M., SERRA J., MAHMUD M., "Prediction and Simulation of Malaysian Forest Fires by Random Spread", *International Journal of Remote Sensing*, 2010, to appear.

[SWE 97] SWELDENS W., "The lifting scheme: A construction of second generation wavelets", *SIAM J. Math. Anal.*, vol. 29, num. 2, p. 511-546, 1997.

[SZE 06] SZELISKI R., *Image alignment and stitching: a tutorial*, vol. 2 of *Foundations and Trends in Computer Graphics and Vision*, Now Publishers, 2006.

[TAL 92] TALBOT H., VINCENT L., "Euclidean skeletons and conditional bisectors", *Procs. VCIP'92, SPIE*, vol. 1818, p. 862-876, 1992.

[TAL 98] TALBOT H., EVANS C., JONES R., "Complete ordering and multivariate mathematical morphology", *Proceedings of the 4th International Symposium on Mathematical Morphology and its Applications (ISMM'98)*, p. 27-34, Kluwer Academic Publishers, Amsterdam, Netherlands, 1998.

[TAL 07] TALBOT H., APPLETON B., "Efficient complete and incomplete paths openings and closings", *Image and Vision Computing*, vol. 25, num. 4, p. 416-425, April 2007.

[TAN 09a] TANKYEVYCH O., TALBOT H., DOKLÁDAL P., PASSAT N., "Direction-adaptive grey-level morphology. Application to 3D vascular brain imaging", *International Conference on Image Processing - ICIP'09, 16th International Conference, Proceedings*, p. 2261–2264, IEEE Signal Processing Society, Cairo, Egypt, November 7–11 2009.

[TAN 09b] TANKYEVYCH O., TALBOT H., DOKLADAL P., PASSAT N., "Spatially-variant morpho-Hessian filter: efficient implementation and application", *Proceedings of the 9th International Symposium on Mathematical Morphology (ISMM) 2009*, p. 137-148, Groningen, Netherlands, 2009.

[TAR 35] TARSKI A., "Zur Grundlegung des Boole'schen Algebra", *Fund. Math.*, vol. 24, p. 177-198, 1935.

[TAR 75] TARJAN R., "Efficiency of a good but not linear set union algorithm", *Journal of the ACM*, vol. 22, num. 2, p. 215-225, April 1975.

[TAR 08] TARIEL V., JEULIN D., FANGET A., CONTESSE G., "3D Multi-scale segmentation of granular materials", *communication to ICS XII*, vol. 27 of *Image Analysis and Stereology*, p. 23-28, Saint-Etienne, France, September 2008.

[TER 02a] TEROL I., VARGAS D., "Openings and closings with reconstruction criteria: a study of a class of lower and upper leveling", *Journal of Electronic Imaging*, vol. 14, num. 1, p. 013006–11, 2002.

[TER 02b] TEROL-VILLALOBOS I., VARGA-VAZQUEZ D., "Openings and closings with reconstruction criteria", TALBOT H., BEARE R., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, p. 413-425, CSIRO, Sydney, Australia, April 2002.

[THI 07] THIEL E., COEURJOLLY D., "Distances discrètes", CŒURJOLLY D., MONTANVERT A., CHASSERY J.-M., Eds., *Géométrie discrète et images numériques*, p. 187-209, Hermes, 2007.

[TOR 03] TORSELLO A., HANCOCK E., "Curvature correction of the Hamilton-Jacobi skeleton", *International Conference on Computer Vision and Pattern Recognition*, vol. 1, p. 828-834, June 2003.

[TRÉ 04] TRÉMEAU A., FERNANDEZ-MALOIGNE C., BONTON P., *Image Numérique Couleur*, first edition, Dunod, Paris, 2004.

[TUR 36] TURING A., "On computable numbers, with an application to the Entscheidungsproblem", *Proceedings of the London Mathematical Society*, vol. 42, num. 2, November 1936, Reprinted in the Undecidable, p. 115-154.

[UDU 96] UDUPA J. K., SAMARSEKARA S., "Fuzzy connectedness and object definition: Theory, algorithms, and applications in image segmentation", *Graphical Models and Image Processing*, vol. 58, p. 246-261, 1996.

[UND 70] UNDERWOOD E., *Quantitative Stereology*, Addison-Wesley, Reading, Mass, 1970.

[URB 02] URBACH E. R., WILKINSON M. H. F., "Shape-only granulometries and grey-scale shape filters", *Proc. Int. Symp. Math. Morphology (ISMM) 2002*, p. 305-314, Sydney, Australia, 2002.

[URB 07] URBACH E. R., ROERDINK J. B. T. M., WILKINSON M. H. F., "Connected shape-size pattern spectra for rotation and scale-invariant classification of gray scale images",

IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 29, num. 2, p. 272-285, 2007.

[URB 08] URBACH E., F. W. M. H., "Efficient 2-D Grayscale Morphological Transformations with Arbitrary Flat Structuring Elements", *IEEE Transactions on Image Processing*, vol. 17, num. 1, p. 1-8, January 2008.

[VAC 95a] VACHIER C., Extraction de caractéristiques, segmentation d'images et morphologie mathématique, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1995.

[VAC 95b] VACHIER C., MEYER F., "Extinction value: a new measurement of persistence", *Proc. of 1995 IEEE Workshop on Nonlinear Signal and Image Processing*, vol. 1, p. 254-257, Juin 1995.

[VAC 95c] VACHIER C., VINCENT L., "Valuation of image extrema using alternating filters by reconstruction", DOUGHERTY E., PRÊTEUX F., SHEN S., Eds., *Neural, Morphological, and Stochastic Methods in Image and Signal Processing*, vol. SPIE-2568, p. 94-103, SPIE, 1995.

[VAC 98] VACHIER C., "Utilisation d'un critère volumique pour le filtrage d'image", *RFIA'98: reconnaissance des formes et intelligence artificielle*, p. 307-315, Clermont Ferrand, France, January 1998.

[VAC 01a] VACHIER C., "Extraction de caractéristiques par analyse morphologique multi-échelle", *Proc. of GRETSI*, vol. 1, September 2001.

[VAC 01b] VACHIER C., "Morphological scale-space analysis and feature extraction", *Proceedings of International Conference on Image Processing*, vol. 3, p. 676-679, 2001.

[VAL 09a] VALERO S., CHANUSSOT J., BENEDIKTSSON J., TALBOT H., WASKE B., "Advanced Directional mathematical Morphology for the Detection of the Road Network in very high resolution images", *Pattern Recognition Letters*, vol. 31, num. 10, p. 1120-1127, 2009.

[VAL 09b] VALERO S., CHANUSSOT J., BENEDIKTSSON J., TALBOT H., WASKE B., "Directional Mathematical Morphology For the detection of the road network in very high resolution remote sensing images", *Proceedings of ICIP 2009*, Cairo, Egypt, 2009.

[VAN 96] VAN DROOGENBROECK M., TALBOT H., "Fast computation of morphological operations with arbitrary structuring elements", *Pattern Recognition Letters*, vol. 17, num. 14, p. 1451-1460, 1996.

[VAN 05] VAN DROOGENBROECK M., BUCKLEY M., "Morphological erosions and openings: fast algorithms based on anchors", *Journal of Mathematical Imaging and Vision, special Issue on Mathematical Morphology after 40 Years*, vol. 22, num. 2-3, p. 121-142, May 2005.

[VAN 08] VANDERESSE N., MAIRE E., DARRIEULAT M., MONTHEILLET F., MOREAUD M., JEULIN D., "3D Microtomographic study of Widmanstatten microstructures in alpha / beta titanium alloy", *Scripta Materialia*, vol. 58, p. 512-515, 2008.

[VER 08] VERDÚ-MONEDERO R., ANGULO J., "Spatially-Variant Directional Mathematical Morphology Operators Based on a Diffused Average Squared Gradient Field", *Advanced Concepts for Intelligent Vision Systems*, p. 542-553, 2008.

[VET 95] VETTERLI M., KOVACEVIC J., *Wavelets and Subband Coding*, Prentice-Hall, Englewood Cliffs, NJ, 1995.

[VIC 07] VICHIK A., KESHET R., MALAH D., "Self-dual morphology on tree semilattices and applications", *Proceedings of the 8th conference on mathematical morphology*, vol. 1, p. 49-60, MCT/INPE, Rio de Janeiro, Brazil, October 2007.

[VID 07] VIDAL J., CRESPO J., MAOJO V., "A shape interpolation technique based on inclusion relationships and median sets", *Image and Vision Computing*, vol. 25, num. 10, p. 1530–1542, Butterworth-Heinemann, 2007.

[VIL 98] VILAPLANA V., MARQUÉS F., "Face segmentation using connected operators", HEIJMANS H., ROERDINK J., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, vol. 12 of *Computational Imaging and Vision*, p. 207-214, Kluwer Academic Publishers, Dordrecht, June 1998.

[VIN 89] VINCENT L., "Graphs and mathematical morphology", *Signal Processing*, vol. 16, p. 365-388, 1989.

[VIN 90] VINCENT L., Algorithmes morphologiques à base de files d'attente et de lacets. Extension aux graphes, doctoral dissertation, École Nationale Supérieure des Mines de Paris, 1990.

[VIN 91a] VINCENT L., "Efficient Computation of Various Types of Skeletons", LOEW M., Ed., *Medical Imaging V*, vol. 1445, p. 297-311, Society of Photo-Instrumentation Engineers, San Jose, CA, USA, 1991.

[VIN 91b] VINCENT L., "Morphological transformations of binary images with arbitrary structuring elements", *Signal Processing*, vol. 22, num. 1, p. 3-23, January 1991.

[VIN 91c] VINCENT L., SOILLE P., "Watersheds in digital spaces: an efficient algorithm based on immersion simulations", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 13, num. 6, p. 583-598, June 1991.

[VIN 92] VINCENT L., "Morphological area openings and closings for greyscale images", *Proc. Shape in Picture '92, NATO Workshop*, Springer-Verlag, Driebergen, Netherlands, September 1992.

[VIN 93a] VINCENT L., "Grayscale area openings and closings, their efficient implementation and applications", SERRA J., SALEMBIER P., Eds., *Proc. EURASIP workshop on Mathematical morphology and its applications to signal processing*, p. 22-27, Barcelona, Spain, May 1993.

[VIN 93b] VINCENT L., "Morphological grayscale reconstruction in image analysis: applications and efficient algorithms", *IEEE Transactions on Image Processing*, vol. 2, num. 2, p. 176-201, April 1993.

[VIN 94] VINCENT L., "Morphological area openings and closings for greyscale images", O Y.-L., TOET A., FOSTER D., HEIJMANS H., MEER P., Eds., *Shape in picture: mathematical description of shape in grey-level Images*, vol. 126 of *NATO ASI Series F*, p. 197-208, Springer-Verlag, 1994.

[VIN 00] VINCENT L., "Granulometries and opening trees", *Fundamenta Informaticae*, vol. 41, num. 1-2, p. 57-90, 2000.

[VIT 79] VITERBI A., OMURA J., *Principles of Digital Communications and Coding*, Mc Graw-Hill, New York, 1979.

[VLI 95] VLIET L., VERBEEK P., "Estimators for Orientation and Anisotropy in Digitized Images", *Proceedings of the first Conference of the Advanced School for Computing and Imaging*, p. 442-450., Heijen, Netherlands, 1995.

[VOG 07a] VOGT J., SOILLE P., DE JAGER A., RIMAVIČIŪTE E., MEHL S., FOISNEAU S., BÓDIS K., DUSART J., PARACCHINI M., HAASTRUP P., BAMPS C., *A Pan-European River and Catchment Database*, vol. EUR 22920 EN, European Publications Office, 2007.

[VOG 07b] VOGT P., RIITTERS K., IWANOWSKI M., ESTREGUIL C., KOZAK J., SOILLE P., "Mapping landscape corridors", *Ecological Indicators*, vol. 7, num. 2, p. 481-488, April 2007.

[WAR 42] WARD M., "The closure operators of a lattice", *Annals of Mathematics*, vol. 43, num. 2, p. 191-196, 1942.

[WEI 63] WEIBEL E., *Morphometry of the human lung*, Springer, Berlin, 1963.

[WES 02] WESTENBERG M. A., ROERDINK J. B. T. M., "Mixed method identifications", DU BUF J. M. H., BAYER M. M., Eds., *Automatic Diatom Identification*, Machine Perception and Artificial Intelligence, Chapter 12, p. 245-257, World Scientific Publishing, Singapore, 2002.

[WIL 96] WILMET J., *Télédétection aérospatiale : méthodes et applications*, SIDES, Paris, 1996.

[WIL 01] WILKINSON M., WESTENBERG M., "Shape preserving filament enhancement filtering", NIESSEN W., VIERGEVER M., Eds., *Medical Image Computing and Computer-Assisted Intervention - MICCAI 2001, 4th International Conference, Proceedings*, vol. 2208 of *Lecture Notes in Computer Science*, p. 770–777, Springer, Utrecht, The Netherlands, October 14–17 2001.

[WIL 02] WILKINSON M. H. F., JALBA A. C., URBACH E. R., ROERDINK J. B. T. M., "Identification by mathematical morphology", DU BUF J. M. H., BAYER M. M., Eds., *Automatic Diatom Identification*, Machine Perception and Artificial Intelligence, Chapter 11, p. 221-244, World Scientific Publishing, Singapore, 2002.

[WIL 06] WILKINSON M. H. F., "Attribute-space connectivity and connected filters", *Image and Vision Computing*, vol. 25, num. 4, p. 426-435, 2006.

[WIL 09] WILLOT F., JEULIN D., "Elastic behavior of materials containing Boolean random sets of inhomogeneities", *International Journal of Engineering Science*, vol. 47, num. 2, p. 313-324, 2009.

[WON 82] WONG K., CASEY R., WAHL F., "Document analysis system", *IBM J. Res. Develop*, vol. 26, num. 2, p. 647-656, 1982.

[WYS 82] WYSECKI G., STILES W., *Color Science: Concepts and Methods, Quantitative Data and Formulae*, second edition, John Wiley & Sons, New York, 1982.

[XU 91] XU J., "Decomposition of Convex Polygonal Morphological Structuring Elements into Neighborhood Subsets", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 13, num. 2, p. 153-162, 1991.

[YAG 87] YAGLOM A., *Correlation theory of stationary and related random functions*, Springer, New York, 1987.

[YOU 96] YOUNG V. R., "Fuzzy subsethood", *Fuzzy Sets and Systems*, vol. 77, p. 371-384, 1996.

[ZAD 65] ZADEH L. A., "Fuzzy sets", *Information and Control*, vol. 8, p. 338-353, 1965.

[ZAM 80] ZAMPERONI P., "Dilatation und Erosion von konturcodierten Binärbildern", *Microscopica Acta*, vol. Suppl. 4, p. 245-249, 1980.

[ZAM 92] ZAMPERONI P., "Adaptive rank order filters for image processing based on local anisotropy measures", *Digital Signal Processing*, vol. 2, p. 174-182, 1992.

[ZAN 99] ZANOGUERA M. F., MARCOTEGUI B., MEYER F., "A Toolbox for Interactive Segmentation Based on Nested Partitions", *ICIP (1)*, p. 21-25, 1999.

[ZAN 02] ZANOGUERA F., "On the implementation of non-separable vector levelings", TALBOT H., BEARE R., Eds., *Mathematical Morphology and its Applications to Image and Signal Processing*, p. 369-377, CSIRO, Sydney, Australia, April 2002.

[ZHA 03] ZHANG K., CHEN S.-C., WHITMAN D., SHYU M.-L., YAN J., ZHANG C., "A progressive morphological filter for removing nonground measurements form airborne LIDAR data", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 41, num. 4, p. 872-882, April 2003.