Université de Liège

# Publications et communications de Cédric Schwartz

**Légende**

*, , etc: texte intégral du document disponible en Open Access*
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***Peer reviewed (vérifié par ORBi) :** l'information est présente dans la base ORBi des périodiques*

## 1. Thèses et mémoires

### 1.b. Thèses de doctorat

Schwartz, C. (2009). *Contribution à l'élaboration d'un espace commun de représentation pour l'analyse morpho-fonctionnelle du membre supérieur : application à l'articulation glénohumérale*. Unpublished doctoral thesis, TELECOM Bretagne, Brest, France.
http://hdl.handle.net/2268/82854
Jury: Rémy-Néris, O. (Promotor), & Burdin, V. (Promotor).

### 1.c. Mémoires de second cycle (licence, master, DES, DEA)

Schwartz, C. (2005). *Corrélation de la densité minérale osseuse de l'os spongieux du fémur et du T2* chez l'enfant*. Unpublished DEA/DES thesis, Université de Technologie de Compiègne, Compiègne, France.
http://hdl.handle.net/2268/96862
Jury: Claude, I. (Promotor).

## 3. Articles dans des revues scientifiques avec peer reviewing

### 3.a. À portée internationale

En tant que premier ou dernier auteur

Schwartz, C., Croisier, J.-L., Rigaux, E., Denoël, V., Bruls, O., & Forthomme, B. (in press). Gender effect on the scapular 3D posture and kinematic in healthy subjects. *Clinical Physiology and Functional Imaging*.
http://hdl.handle.net/2268/172993
Peer reviewed ✓

Tubez, F., Forthomme, B., Croisier, J.-L., Cordonnier, C., Bruls, O., Denoël, V., Berwart, G., Joris, M., GROSDENT, S., & Schwartz, C. (2015). Biomechanical Analysis of Abdominal Injury in Tennis Serves. A Case Report. *Journal of Sports Science & Medicine, 14*, 402-412.
http://hdl.handle.net/2268/180795
Peer reviewed (vérifié par ORBi) ✓

Schwartz, C., Denoël, V., Forthomme, B., Croisier, J.-L., & Bruls, O. (2015). Merging multi-camera data to reduce motion analysis instrumental errors using Kalman filters. *Computer Methods in Biomechanics and Biomedical Engineering, 18*(9), 952-960.
http://hdl.handle.net/2268/158997
Peer reviewed (vérifié par ORBi) ✓

Schwartz, C., Croisier, J.-L., Rigaux, E., Denoël, V., Bruls, O., & Forthomme, B. (2014). Dominance effect on scapula 3-dimensional posture and kinematics in healthy male and female populations. *Journal of Shoulder and Elbow Surgery, 23*(0), 873-881.
http://hdl.handle.net/2268/158994
Peer reviewed (vérifié par ORBi) ✓

Schwartz, C., Leboeuf, F., Rémy-Néris, O., Brochard, S., Lempereur, M., & Burdin, V. (2013). Detection of incoherent joint state due to inaccurate bone motion estimation. *Computer Methods in Biomechanics & Biomedical Engineering, 16*, 165-174.
http://hdl.handle.net/2268/99814
Peer reviewed (vérifié par ORBi)

Schwartz, C., Leboeuf, F., Rémy-Néris, O., Brochard, S., Lempereur, M., & Burdin, V. (2013). Using merged kinematic and anatomical data to evaluate humeral motion estimation: a pilot study. *Computer Methods in Biomechanics and Biomedical Engineering. Imaging & Visualization, 1*, 43-47.
http://hdl.handle.net/2268/142840
Peer reviewed (vérifié par ORBi)

### En tant que co-auteur

Boutaayamou, M., Schwartz, C., Stamatakis, J., Denoël, V., Maquet, D., Forthomme, B., Croisier, J.-L., Macq, B., Verly, J., Garraux, G., & Bruls, O. (2015, January). Development and validation of an accelerometer-based method for quantifying gait events. *Medical Engineering & Physics*.
http://hdl.handle.net/2268/176591
Peer reviewed (vérifié par ORBi)

Mutsvangwa, T., Burdin, V., Schwartz, C., & Roux, C. (2015). An automated statistical shape model developmental pipeline: application to the human scapula and humerus. *IEEE Transactions on Biomedical Engineering, 62*(4), 1098 - 1107.
http://hdl.handle.net/2268/174440
Peer reviewed (vérifié par ORBi)

GILLAIN, S., Schwartz, C., Boutaayamou, M., Demonceau, M., CROISIER, J.-L., Bruls, O., GARRAUX, G., REGINSTER, J.-Y., & PETERMANS, J. (2014). Validation des paramètres de marche par un système accélérométrique (Locométrix*) à l'aide d'un système opto-électronique 3D (Coda Motion ). *Gériatrie et Psychologie Neuropsychiatrie du Vieillissement, 12*(supplément 3).
http://hdl.handle.net/2268/173977
Peer reviewed

Sandholm, A., Schwartz, C., Pronost, N., de Zee, M., Voigt, M., & Thalmann, D. (2011). Evaluation of a geometry-based knee joint compared to a planar knee joint. *Visual Computer, 27*, 161-171.
http://hdl.handle.net/2268/83250
Peer reviewed (vérifié par ORBi)

Jacq, J.-J., Schwartz, C., Burdin, V., Gerard, R., Lefevre, C., Roux, C., & Remy-Neris, O. (2010). Building and tracking root shapes. *IEEE Transactions on Biomedical Engineering, 57*(3), 696-707.
http://hdl.handle.net/2268/74601
Peer reviewed (vérifié par ORBi)

# 6. Chapitres et parties d'ouvrages collectifs

## 6.a. Chapitres

Schwartz, C., Croisier, J.-L., Tubez, F., HAZEE, A., Bruls, O., Denoël, V., & Forthomme, B. (2013). L'apport de l'analyse biomécanique 3-D dans les stratégies préventives à partir de 2 exemples. In M., Julia, J.-L., Croisier, S., Perrey, A., Dupeyron, & C., Hérisson (Eds.), *Prévention des troubles musculo-squelettiques chez le sportif*. Sauramps Medical.
http://hdl.handle.net/2268/144548

# 8. Conférences scientifiques dans des universités et centres de recherche

Boutaayamou, M., Schwartz, C., Stamatakis, J., Denoël, V., Maquet, D., Forthomme, B., Croisier, J.-L., Macq, B., Verly, J., Garraux, G., & Bruls, O. (2013, November 07). *3D analysis of gait using accelerometer measurements*. Paper presented at 2013 BEMEKO workshop on measurement: Challenges and Opportunities, Liège, Belgique.
http://hdl.handle.net/2268/160237

# 9. Colloques et congrès scientifiques

## 9.a. Sur invitation

### À portée internationale

Schwartz, C. (2012, January 29). *Analyse de la position en 3 dimensions : intérêts pour la posturologie*. Paper presented at Congrès annuel de l'Association Internationale de Posturologie, Liège, Belgium.
http://hdl.handle.net/2268/110821

De Zee, M., Lund, M., Schwartz, C., Olesen, C., & Rasmussen, J. (2010, September). *Validation of musculoskeletal models: the importance of trend validations*. Paper presented at IUTAM Symposium on Human Movement Analysis and Simulation, Leuven, Belgium.
http://hdl.handle.net/2268/73796

### À portée nationale

Boutaayamou, M., Schwartz, C., Stamatakis, Denoël, V., Maquet, D., Forthomme, B., Croisier, J.-L., Macq, B., Verly, J., Garraux, G., & Bruls, O. (2013, October 15). *Intérêt d'une analyse instrumentale de la marche au moyen d'un système d'accéléromètres*. Paper presented at SEMINAIRE « Les troubles de la marche», Charleroi, Belgique.
http://hdl.handle.net/2268/157231

## 9.b. Sur proposition personnelle

### Publiées

#### À portée internationale

##### Avec peer reviewing

GILLAIN, S., Petermans, J., Dardenne, N., Beaudart, C., Buckinx, F., GARRAUX, G., REGINSTER, J.-Y., Bruyère, O., Demonceau, M., WOJTASIK, V., & Schwartz, C. (2015). Comparison of body composition, muscle force and physical performances between faller and non-faller people included in a cohort of 100 community dwelling volunteers : the Gaby Study. *Journal of Frailty & Aging, 4*(S1), 106.
http://hdl.handle.net/2268/180647
Peer reviewed (vérifié par ORBi) ✔

Boutaayamou, M., Schwartz, C., Denoël, V., FORTHOMME, B., Croisier, J.-L., Garraux, G., Verly, J., & Bruls, O. (2014). Development and validation of a 3D kinematic-based method for determining gait events during overground walking. *IEEE International Conference on 3D Imaging (IC3D)* (pp. 1-6). IEEE.
http://hdl.handle.net/2268/176139
Peer reviewed ✔

Schwartz, C., Berger, A., Bruls, O., Forthomme, B., Croisier, J.-L., & Denoël, V. (2014). Experimental Study of the Human Ability to Deliberately Excite a Flexible Floor. In A., Zingoni (Ed.), *Proceedings of the 5th International Conference on Structural Engineering, Mechanics and Computation*.
http://hdl.handle.net/2268/165293
Peer reviewed ✔

Boutaayamou, M., Schwartz, C., Stamatakis, J., Denoël, V., Maquet, D., Forthomme, B., Croisier, J.-L., Macq, B., Verly, J., Garraux, G., & Bruls, O. (2012). Validated Extraction of Gait Events from 3D Accelerometer Recordings. *IEEE International Conference on 3D Imaging (IC3D)*.
http://hdl.handle.net/2268/140565
Peer reviewed ✔

Boutaayamou, M., Schwartz, C., Bruls, O., Denoël, V., Demonceau, M., Maquet, D., Forthomme, B., Croisier, J.-L., Garraux, G., & Verly, J. (2012). 3D Analysis of Normal and Pathological Gait Based on Low-Cost Wireless Accelerometers. *URSI Benelux Forum 2012 "Antennas: multiple designs, multiple applications"*.
http://hdl.handle.net/2268/131361
Peer reviewed ✔

Leboucher, J., Schwartz, C., Brochard, S., Burdin, V., & Rémy-Néris, O. (2009). Evaluation of elbow biomechanical models using data fusion: Application to elbow flexion. *Gait & Posture, 30*(2009), 60-S61.
http://hdl.handle.net/2268/82998
Peer reviewed (vérifié par ORBi) ✔

Schwartz, C., Burdin, V., Jacq, J. J., Remy-Neris, O., & Lempereur, M. (2007, August). Shoulder motion analysis using simultaneous skin shape registration. *Conference Proceedings: Annual International Conference of the IEEE Engineering in Medicine and Biology Society*.
http://hdl.handle.net/2268/74602
Peer reviewed ✔

## Communications uniquement orales ou poster

### À portée internationale

Tubez, F., Forthomme, B., Croisier, J.-L., Cordonnier, C., Bruls, O., Denoël, V., & Schwartz, C. (2015, July). *How bioméchanical analysis may help to identify abdominal injury causes in high level tennis*. Paper presented at The 33rd International Conference on Biomechanics in Sports, Poitiers, France.
http://hdl.handle.net/2268/183966
Peer reviewed ✔

Van Hulle, R., Schwartz, C., Croisier, J.-L., Denoël, V., Forthomme, B., & Bruls, O. (2015, June). *Towards a predictive modelling of the normal and pathological gait*. Poster session presented at Biomedica 2015, The European Life Sciences Summit, Genk, Belgium.
http://hdl.handle.net/2268/183673

Goossens, A., Schwartz, C., Barrett, B., Jacquot, M., Van Erck-Westergren, E., & Tomberg, C. (2015, May). *Characterization of the splenius muscle's activity (Splenius capitis) during a walk phase at the warm up onset of ridden horses (Equus caballus)*. Poster session presented at International Equine Science Meeting, Nürtingen, Allemagne.
http://hdl.handle.net/2268/182666
Peer reviewed ✔

Tubez, F., Croisier, J.-L., Cordonnier, C., Denoël, V., Bruls, O., DEGEHET, M., Forthomme, B., & Schwartz, C. (2014, July 06). *Influence of players' level on racket speed and ball accuracy in the tennis serve*. Paper presented at 19th annual Congress of the EUROPEAN COLLEGE OF SPORT SCIENCE, Amsterdam, The Netherlands.
http://hdl.handle.net/2268/170753
Peer reviewed ✔

Cordonnier, C., Croisier, J.-L., Forthomme, B., Delvaux, F., Bruls, O., Denoël, V., & Schwartz, C. (2014, July 04). *Comparison between first and second landing for different vertical drop jump tasks. Implication in injury risk prevention*. Paper presented at 19th annal congress of the European College of Sport Science, Amsterdam, Pays-Bas.
http://hdl.handle.net/2268/171436
Peer reviewed ✔

Schwartz, C., Cordonnier, C., Lehance, C., Delvaux, F., Forthomme, B., Denoël, V., Bruls, O., & Croisier, J.-L. (2014, July 04). *Importance of quantitative return-to-field criteria*. Paper presented at 19th annual congress of the European College of Sport Science, Amsterdam, the Netherlands.
http://hdl.handle.net/2268/171937
Peer reviewed ✔

Deflandre, D., Bury, T., Schwartz, C. (Other coll.), & Croisier, J.-L. (Other coll.). (2014, July). *3D analysis and determination of stride parameters for different type of foot strike in running*. Poster session presented at ECSS AMSTERDAM 2014, Amsterdam, Hollande.
http://hdl.handle.net/2268/171175
Peer reviewed ✔

Schwartz, C., Denoël, V., Bruls, O., Croisier, J.-L., & Forthomme, B. (2013, August 06). *Reference populations for shoulder studies should be selected carefully*. Paper presented at XXIV Congress of the International Society of Biomechanics, Natal, Brazil.
http://hdl.handle.net/2268/155713
Peer reviewed ✔

Boutaayamou, M., Schwartz, C., Stamatakis, J., Denoël, V., Maquet, D., Forthomme, B., Croisier, J.-L., Macq, B., Verly, J., Garraux, G., & Bruls, O. (2013, June). *Validation of an accelerometer-based approach to quantify gait events*. Poster session presented at Biomedica 2013 - The european life sciences summit.
http://hdl.handle.net/2268/153549
Peer reviewed ✓

Schwartz, C., Fedrigo, T., Bruls, O., Cescotto, S., Denoël, V., Croisier, J.-L., & Forthomme, B. (2011, July). *Reproducibility and repeatability of upper limb landmarks palpation for junior operators*. Poster session presented at XXIIIrd congress of the International Society of Biomechanics, Brussels, Belgium.
http://hdl.handle.net/2268/96747
Peer reviewed ✓

Schwartz, C., Fringuellini, A., Bruls, O., Forthomme, B., Croisier, J.-L., Cescotto, S., & Denoël, V. (2011, July). *Improving 3D measurements accuracy with camera information redundancy*. Paper presented at XXIIIrd congress of the International Society of Biomechanics, Brussels, Belgium.
http://hdl.handle.net/2268/96746
Peer reviewed ✓

Leboeuf, F., Brochard, S., Lempereur, M., Schwartz, C., & Rémy-Néris, O. (2011, July). *Location of the best confident scapula cluster during a forward humeral elevation*. Poster session presented at XXIIIrd Congress of the International Society of Biomechanics, Brussels, Belgium.
http://hdl.handle.net/2268/95389
Peer reviewed ✓

Schwartz, C., Forthomme, B., Bruls, O., Denoël, V., Cescotto, S., & Croisier, J.-L. (2010, December). *Using 3D to understand human motion*. Poster session presented at 3D Stereo Media, Liège, Belgium.
http://hdl.handle.net/2268/82037
Peer reviewed ✓

Schwartz, C., de Zee, M., Rasmussen, J., & Voigt, M. (2010, July). *Knee model using articular shape knowledge*. Paper presented at European Society of Biomechanics conference, Edinburgh, Great Britain.
http://hdl.handle.net/2268/82859
Peer reviewed ✓

Schwartz, C., Lund, M., de Zee, M., & Rasmussen, J. (2010, June). *Prediction of knee loads using a lower extremity model based on the Klein Horsman data set*. Paper presented at Summer Bioengineering Conference (SBC2010), Naples, USA.
http://hdl.handle.net/2268/82871
Peer reviewed ✓

### À portée nationale

Jacquot, M., Grosjean, A., Emrot, C., Van-Erck-Westergren, E., Schwartz, C., & Tomberg, C. (2015, May). *Effects of a walk phase at the warm up onset on physiological and behavioural parameters of ridden horses (Equus caballus)*. Poster session presented at International Equine Science Meeting, Nürtingen, Germany.
http://hdl.handle.net/2268/182668
Peer reviewed ✓

Schwartz, C., HAZEE, A., Denoël, V., Bruls, O., Croisier, J.-L., & Forthomme, B. (2012, December 07). *Shoulder injury prevention in sports using 3D motion capture*. Poster session presented at 11th Belgian Day on Biomedical Engineering, Brussels, Belgium.
http://hdl.handle.net/2268/137205
Peer reviewed ✓

Schwartz, C., Lempereur, M., Burdin, V., Jacq, J.-J., & Rémy-Néris, O. (2006). *Méthode d'analyse du mouvement de l'épaule par utilisation de nappes*. Poster session presented at Manifestation des Jeunes Chercheurs en Sciences et Technologies de l'Information et de la Communication, Lorient, France.
http://hdl.handle.net/2268/131899
Peer reviewed ✓

## 12. Documents pédagogiques

Schwartz, C. (2015). *Principes biomécaniques pour le sport (cours ADEPS)*.
http://hdl.handle.net/2268/178030

Schwartz, C., Forthomme, B., Denoël, V., Bruls, O., Cescotto, S., & Croisier, J.-L. (2011). *Utilisation de la biomécanique pour l'analyse de la performance* (Laboratoire d'Analyse du Mouvement humain (LAMH), Université de Liège, Utilisation de la biomécanique pour l'analyse de la performance). Liège, Belgique.
http://hdl.handle.net/2268/88069

# 14. Allocutions et communications diverses

## 14.b. Conférences données hors contexte académique

Schwartz, C. (2014). *Laboratory of Human Motion Analysis - working with high level athletes*. Paper presented at International High Level Sports Biomechanics Platform, Brussels, Belgium.
http://hdl.handle.net/2268/172950