



Bernardo Innocenti, PhD

Curriculum Vitae

BEAMS, Université libre de Bruxelles (ULB)
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Short CV

2012 – Present: Professor, Chair of Biomechanics, ULB - Université Libre de Bruxelles, BEAMS Department (Bio Electro and Mechanical Systems), Brussels, Belgium, Full time (100%).

2011 – Present: Guest Professor, Division of Biomechanics, Department of Mechanical Engineering, KU Leuven, Celestijnenlaan 300C, 3001, Heverlee, Leuven, Belgium.

2007 – 2012: Lead Project Manager in Numerical Kinematics, European Centre for Knee Research, Smith & Nephew – Leuven, Belgium

2002 – 2007: University of Florence, Firenze, Italy, Teaching assistant

2003 – 2006: University of Florence, Italy, Contract Professor

Education

Courses

Orthopaedic Biomechanics (5 credits) - MA1 IRCCB

Design of Orthopaedic Medical Devices (5 credits) – MA2 BIOMED

Biomedical Robotics (5 credits, Emanuele Garone) – MA2 EM/BIOMED

Management responsibilities

2019 - present: Vice-president of the Biomedical Filiere

2019 - present: Responsible of the admission dossier of the MSc in Biomedical Engineering

Scientific profile

ORCID ID: 0000-0001-8992-8865

ScopusID: 23389099500

ISI-ranked journal papers: 97

Peer-reviewed conference papers: >300

Citations (Scopus): 1859

Citation (Scholar): 2692

h-index (Scopus): 25

h-index (Scholar): 29

Five main publications

Innocenti B, Bori E, Paszicsnyek T. Functional stability: an experimental knee joint cadaveric study on collateral ligaments tension. *Arch Orthop Trauma Surg.* 2021 May 27. doi: 10.1007/s00402-021-03966-1. Epub ahead of print. PMID: 34046716.

Innocenti B, Bellemans J, Catani F. Deviations From Optimal Alignment in TKA: Is There a Biomechanical Difference Between Femoral or Tibial Component Alignment? *J Arthroplasty.* 2016 Jan;31(1):295-301.

Innocenti B, Bilgen ÖF, Labey L, van Lenthe GH, Sloten JV, Catani F. Load sharing and ligament strains in balanced, overstuffed and understuffed UKA. A validated finite element analysis. *J Arthroplasty*. 2014 Jul;29(7):1491-8.

Catani F, Innocenti B, Belvedere C, Labey L, Ensini A, Leardini A. The Mark Coventry Award: Articular contact estimation in TKA using in vivo kinematics and finite element analysis. *Clin Orthop Relat Res*. 2010 Jan;468(1):19-28.

Innocenti B, Pianigiani S, Labey L, Victor J, Bellemans J. Contact forces in several TKA designs during squatting: A numerical sensitivity analysis. *J Biomech*. 2011 May 17;44(8):1573-81.

Other scientific output and impact (only mention most relevant)

Published books

Bernardo Innocenti e Fabio Galbusera (2022). Human Orthopaedic Biomechanics: Fundamentals, Devices and Applications. Academic Press (25/02/22) ISBN: 978-0128244814

Bernardo Innocenti. Biomeccanica del tendine d'Achille (2018). In Francesco Oliva (Eds,), Le rotture acute e croniche del Tendine d'Achille. Momento Medico, Salerno, Italy. ISBN 88-8160-290-3

Hongsheng Wang, Tony Chen, Bernardo Innocenti (2016). Tekscan Measurements of Interfacial Contact Area and Stress in Articulating Joints. In Radovan Zdero (Eds,), Experimental Methods for Orthopaedic Biomechanics: A Step-by-Step Practical Manual. Elsevier, Inc., Amsterdam, The Netherlands. ISBN: 978-0-12803-802-4.

Silvia Pianigiani and Bernardo Innocenti (2015). The use of finite element modeling to improve biomechanical research on knee prosthesis. In Janice Stewart (Eds,), New Developments in knee prosthesis research (pp. 113-126). Nova Science Publishers, Inc. Hauppauge, NY, USA. ISBN: 978-1-63482-700-3

Valorization experience and industrial collaboration

Patents

- Thomas Paszicsnyek, Bernardo Innocenti, 2021. THREE-DIMENSIONAL ORIENTATION SYSTEM AND METHOD FOR ORTHOPEDIC SURGERY. Publication number: 20210145458. United States Patent and Trademark Office (USPTO).
- Carlo de Asmundis, Bernardo Innocenti, 2021 (submitted). MASCHERA CARDIACA, DISPOSITIVO E PROCEDIMENTO DI REALIZZAZIONE DELLA MASCHERA CARDIACA. Numero di registrazione N. 102021000025157. UIBM - ufficio italiano brevetti e marchi.
- Giuseppe Di Gemma, Bernardo Innocenti, Pierluigi Antinolfi, Alessandro Severico. GINOCCHIERA PERSONALIZZATA E PROCEDIMENTO PER LA SUA REALIZZAZIONE PER FABBRICAZIONE ADDITIVA. N. 102019000025816. UIBM - ufficio italiano brevetti e marchi.

Spinoff companies and technology licensing

Aid4Med
InBos-AG