

Journal Publications

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| [1] | Natsakis T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten J. Foot - ankle simulators: A tool to advance biomechanical understanding of a complex anatomical structure. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 230 (5):440-449, 2016. |
| [2] | Natsakis T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten J. Insertion of a pressure sensing array minimally affects hindfoot bone kinematics. <i>Journal of Foot and Ankle Research</i> , 8(1):24, 2015. |
| [3] | Natsakis T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten J. Inertial control as novel technique for in vitro gait simulations. <i>Journal of biomechanics</i> , 48(2):392-395, 2015. |
| [4] | Natsakis T., Burg J., Dereymaeker G., Vander Sloten J., and Jonkers I. Extrinsic Muscle Forces Affect Ankle Loading Before and After Total Ankle Arthroplasty. <i>Clinical Orthopaedics and Related Research</i> , 473(9):3028-3037, 2015. |
| [5] | Natsakis T., Peeters K., Burg J., Dereymaeker G., Vander Sloten J., and Jonkers I. Specimen-specific tibial kinematics model for in vitro gait simulations. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 227(4):454-463, 2012. |
| [6] | Boey H, Verfaillie S, Natsakis T, Vander Sloten J, Jonkers I. Augmented Ligament Reconstruction Partially Restores Hindfoot and Midfoot Kinematics After Lateral Ligament Ruptures. <i>The American journal of sports medicine</i> . 2019 May 24, doi: 10.1177/0363546519848421. |
| [7] | Peeters K., Natsakis T., Burg J., Pieter Spaepen, Jonkers I., Dereymaeker G., and Vander Sloten J. An in vitro approach to the evaluation of foot-ankle kinematics: performance evaluation of a custom-built gait simulator. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 227(9):955-67, 2013. |
| [8] | Burg J., Peeters K., Natsakis T., Dereymaeker G., Vander Sloten J., and Jonkers I. In vitro analysis of muscle activity illustrates mediolateral decoupling of hind and mid foot bone motion. <i>Gait & posture</i> , 38(1):56-61, 2013. |

Conferences

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| [1] | Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Muscle forces affects topology and magnitude of contact joint forces in the ankle. <i>European Society of Biomechanics</i> . Prague, 5-8 July 2015 |
| [2] | Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Minimal influence of sensor array in hind foot joint kinematics during in-vitro gait simulations. <i>International Society of Biomechanics</i> . Glasgow, 12-16 July 2015 |
| [3] | Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Intra-articular pressure distribution in the native and prosthetic ankle joint. <i>International Society of Biomechanics</i> . Glasgow, 12-16 July 2015 |
| [4] | Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Cartilage loading in the native ankle & the effect of extrinsic muscle forces. <i>International Cartilage Repair Society</i> . Chicago, 8-10 May 2015 |
| [5] | Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. In-vitro intra-articular pressure distribution in the ankle: can it be used for model validation? <i>World Congress of Biomechanics</i> . Boston, USA, 6-12 July 2014 |
| [6] | Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Inertial control: a novel technique for |



– Anastasios Natsakis –

[6]	Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Inertial control: a novel technique for in-vitro analysis of foot function. Congress of the International Foot and Ankle Biomechanics Community. Sydney, Australia, 11-13 April 2012
[7]	Natsakis, T., Burg J., Dereymaeker G., Jonkers I., and Vander Sloten. Quality assurance in in-vitro testing: pitfalls and tricks. International Symposium on Foot and Ankle. Limelette, 21-22 October 2011
[8]	Burg, J., Peeters, K., Natsakis, T., Dereymaeker G., Jonkers I., and Vander Sloten. In vitro analysis on the effect of muscle action on hindfoot kinematics during stance. European Society of Biomechanics 2012. Lisbon, Portugal, 1-4 July 2012
[9]	Burg, J., Peeters, K., Natsakis, T., Dereymaeker G., Jonkers I., and Vander Sloten. Effects of extrinsic foot musculature on hindfoot kinematics during stance phase: Implications for flatfoot pathology. Congress of the International Foot and Ankle Biomechanics Community. Sydney, Australia, 11-13 April 2012
[10]	Soodmand, E., Natsakis, T., Jonkers, I., Vander Sloten, J. Intra-articular Pressure Based Stress Analysis of the Distal Tibia Following Insertion of a Total Ankle Replacement. Computer Methods in Biomechanics and Biomedical Engineering. Montreal, Canada, 01-05 September 2015

Didactic material used in the classroom

- [1] Interactive MATLAB tutorial (www.github.com/tassos/matlab_tutorial)
- [2] Lectures on Robotic Systems Control (www.natsakis.com/course/robotic-systems-control)
- [3] Laboratory assignment on the Jacobian of a robot (http://www.natsakis.com/courses/rsc/lab_05.pdf)
- [4] Laboratory assignment on Dynamical modelling for Robots (co-created with Alexandru Codrean, http://www.natsakis.com/courses/rsc/lab_08.zip)
- [5] Laboratory assignments for Integrated Fabrication Systems (https://natsakis.com/courses/sfi/sfi_lab7.pdf https://natsakis.com/courses/sfi/sfi_lab8.pdf)

