



Giannis Giakas

Items	Number
Books	1
Book Chapters	2
Articles in International Peer-Reviewed Journals Indexed in Bibliographical Databases (e.g. SPORTDISCUS)	>55
Articles in Journals not Indexed in Bibliographical Databases	-
Refereed International Conference Presentations	Stopped counting
Invited Presentations	>10
Harzing's PorP/Scopus Citation Index (including self-citations)	1273
Harzing's PorP/Scopus h-index	19
Involved in Successful Grant Applications	>17

1 EDUCATION

- **BSc** Aristotle University of Thessaloniki; Dept. PE and Sport Science, Greece (1993)
- **PhD** Manchester Metropolitan University; Dept. of Exercise and Sport Sciences, UK (1998)

2 EMPLOYMENT HISTORY

- Associate Prof in Biomechanics, University of Thessaly, Dept of PE & Sports Science (2014-date)
- Assistant Prof in Biomechanics, University of Thessaly, Dept of PE & Sports Science (2009-2014)
- Lecturer in Biomechanics, University of Thessaly, Dept of PE & Sports Science (2004-2009)
- Postdoctoral Research Fellow, University of Ioannina, Dept of Orthopaedic Surgery (2001-2003)
- Postdoctoral Holt Research Fellow, SATRU, Department of Geriatric Medicine, The University of Manchester, Hope Hospital, Salford, UK (1999-2001)
- Senior Lecturer in Exercise Biomechanics, Staffordshire University, Sport, Health and Exercise, Stoke on Trent, UK (1997-1999)

3 ACADEMIC & SCIENTIFIC EXPERIENCE

3.1 Undergraduate Teaching

1. «Biomechanics»,
2. «Research Methods in Biomechanics»,
3. «Musculoskeletal Loading», «Handball» (2004-present)

3.2 Postgraduate Teaching

- MSc in Military Fitness & Wellbeing (2014 – present).
1. «Biomechanics and Ergonomics»,

2. « Data presentation and thesis writing»

MSc Exercise and Health

3. «Innovative technology in movement analysis»
4. «Rehabilitation through isokinetic dynamometry»
5. «Human motion analysis»

3.3 Supervision/Co-supervision of Doctoral Theses

3.3.1 Completed

1. Dr Christos Savva
2. Dr Themistoklis Tsatalas
3. Dr Apostolos Georgakis
4. Dr Nachiappan Chockalingam

3.3.2 In Progress

5. Mr Vasilios Sideris
6. Mr Giannis Spyropoulos
7. Mr Vasilis Korakakis
8. Mr Christos Efstathiou
9. Ms Rea Levantinou

3.4 Supervision of Master's Dissertations

3.4.1 Completed

1. Ms Rea Levantinou
2. Mr Petros Koros
3. Mr Dimosthenis Soulimetsis
4. Mr Vasilios Korakakis
5. Mr Giannis Spanos
6. Mr Spyros Georgiou
7. Mr Dionysios Giannoulis
8. Ms Eleni Kokkinou
9. Mr Nikos Sargiotis
10. Mr Vasilios Sideris
11. Mr Dimitrios Kalliaras
12. Ms Elena Katsakiori
13. Mr Ioannis Giannoulis MD
14. Ms Mina Antoniou
15. Mr Ioannis Spyropoulos
16. Ms Aikaterini Ziaka
17. Ms Styliani Zagavierou
18. Mr Alexandros Tsarouchas MD
19. Mr Thanasis Spontis

20. Mr Chrysovalantis Sassanins
21. Dr Savvas Lazarides
22. Mr Katerina Kalaitzi
23. Mr Kostas Antoniou MD
24. Mr Savvas Lazarides

3.5 Funding

3.5.1 Competitive International

- | | | |
|-----|---------|---|
| 1. | 70,000 | Giakas G (2011). TidalSense DEMO, R4SME, EUROPEAN UNION |
| 2. | 200,000 | Giakas G (2010). EasyReach. AAL, GSRT + EUROPEAN UNION |
| 3. | 480,500 | Giakas G (2010). Hypersol. R4SME, EUROPEAN UNION |
| 4. | 239,625 | Giakas G (2010). ChipCheck, R4SME, EUROPEAN UNION |
| 5. | 320,000 | Giakas G (2010). Monitorail, R4SME, EUROPEAN UNION |
| 6. | 295,000 | Giakas G (2009). Selfscan. R4SME, EUROPEAN UNION |
| 7. | 260,000 | Giakas G (2009). TidalSense. R4SME, EUROPEAN UNION |
| 8. | 194,000 | Giakas G (2009). Wintour. R4SME, EUROPEAN UNION |
| 9. | 300,000 | Giakas G (2009). Nozzlespec. R4SME, EUROPEAN UNION |
| 10. | 316,000 | Giakas G (2008). Compair. FP7, EUROPEAN UNION |
| 11. | 512,000 | Giakas G (2008). Ship Inspector. R4SME, EUROPEAN UNION |

3.5.2 Competitive National

- | | | |
|----|-----------|--|
| 1. | 600,000 | Papadopoulos E, Tsakiris D and Giakas G (2012). BiolegRob. GSRT (140,000 for G Giakas) |
| 2. | 32,000 | Giakas G and Karatzaferi CK (2008). Exercise and Health. GSRT, GREECE |
| 3. | 29,000 | Giakas G (2006). Exercise for everyone. GSRT, GREECE |
| 4. | 6,200,000 | Houstis E et al. (2006). Center for Research Technology and Innovation (CERETETH). GSRT GREECE |
| 5. | 100,000 | Koutedakis I et al (2004). Exercise and Health. Ministry of Education, GREECE |
| 6. | 29,400 | Giakas G (2003). Development of GUI software for research and teaching in biomechanics. GSRT, GREECE |

3.5.3 Miscellaneous

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3.6 Participation in International Scientific and Administrative Committees

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3.7 Membership in International Professional Organizations

4 PUBLICATIONS

4.1 Books

1. Natsis P, Pappas A and G Giakas (2007). Handball: Steps to success. Christodoulidi Publications, ISBN 960-8183-60-X

4.2 Book Chapters

1. Tsepis E, G Vagenas, G Giakas, S Ristanis and A Georgoulis (2007). Non-operative management of anterior cruciate ligament deficient patients. In Chadwick Prodromos (Eds) "The Anterior Cruciate Ligament: Reconstruction and Basic Science". Elsevier.
2. Giakas G. (2004). Power spectrum analysis and filtering. In N Stergiou (Eds) Innovative Analyses of Human Movement. (chapter 9) p 223-258. Human Kinetics Publishers.

4.3 Articles in International Peer-Reviewed Journals Indexed in Bibliographical Databases (e.g. SPORTDISCUS)

1. Mina, M.A., Blazeovich, A.J., Giakas, G., Kay, A.D., Influence of variable resistance loading on subsequent free weight maximal back squat performance, Journal of Strength and Conditioning Research 2014, 28(10), 2988-2995
2. Malliaropoulos, N., Korakakis, V., Christodoulou, D., G Giakas, Malliaras, P., Lohrer H. Development and validation of a questionnaire (FASH - Functional Assessment Scale for Acute Hamstring Injuries): To measure the severity and impact of symptoms on function and sports ability in patients with acute hamstring injuries, British Journal of Sports Medicine 2014, 48(22), 1607-1612
3. Savva, C., G. Giakas, M. Efstathiou, and C. Karagiannis, Test-retest reliability of handgrip strength measurement using a hydraulic hand dynamometer in patients with cervical radiculopathy. J Manipulative Physiol Ther, 2014. 37(3): p. 206-10.
4. Mina, M.A., A.J. Blazeovich, G. Giakas, and A.D. Kay, *The Influence of Variable Resistance Loading on Subsequent Free Weight Maximal Back Squat Performance*. J Strength Cond Res, 2014.
5. Korakakis, V., V. Sideris, and G. Giakas, *Sitting bodily configuration: A study investigating the intra-tester reliability of positioning subjects into a predetermined sitting posture*. Man Ther, 2014. 19(3): p. 197-202.
6. Tsatalas, T., G. Giakas, G. Spyropoulos, V. Sideris, S. Lazaridis, C. Kotzamanidis, and Y. Koutedakis, *The effects of eccentric exercise-induced muscle damage on running kinematics at different speeds*. J Sports Sci, 2013. 31(3): p. 288-98.
7. Tsatalas, T., G. Giakas, G. Spyropoulos, V. Sideris, C. Kotzamanidis, and Y. Koutedakis, *Walking kinematics and kinetics following eccentric exercise-induced muscle damage*. J Electromyogr Kinesiol, 2013. 23(5): p. 1229-36.
8. Spyropoulos, G., T. Tsatalas, D.E. Tsaopoulos, V. Sideris, and G. Giakas, *Biomechanics of sit-to-stand transition after muscle damage*. Gait Posture, 2013. 38(1): p. 62-7.
9. Savva, C. and G. Giakas, *The effect of cervical traction combined with neural mobilization on pain and disability in cervical radiculopathy. A case report*. Man Ther, 2013. 18(5): p. 443-6.
10. Paschalis, V., M.G. Nikolaidis, A.A. Theodorou, C.K. Deli, V. Raso, A.Z. Jamurtas, . . . Y. Koutedakis,

The effects of eccentric exercise on muscle function and proprioception of individuals being overweight and underweight. J Strength Cond Res, 2013. **27**(9): p. 2542-51.

11. Moustakidis, S.P., J.B. Theocharis, and G. Giakas, *Feature selection based on a fuzzy complementary criterion: application to gait recognition using ground reaction forces.* Comput Methods Biomech Biomed Engin, 2012. **15**(6): p. 627-44.
12. Hantes, M.E., A. Tsarouhas, G. Giakas, G. Spiropoulos, V. Sideris, P. Christel, and K.N. Malizos, *Effect of fatigue on tibial rotation after single- and double-bundle anterior cruciate ligament reconstruction: a 3-dimensional kinematic and kinetic matched-group analysis.* Am J Sports Med, 2012. **40**(9): p. 2045-51.
13. Tsarouhas, A., M. Iosifidis, G. Spyropoulos, D. Kotzamitelos, T. Tsatalas, and G. Giakas, *Tibial rotation under combined in vivo loading after single- and double-bundle anterior cruciate ligament reconstruction.* Arthroscopy, 2011. **27**(12): p. 1654-62.
14. Davis, J.M., W.J. Giakas, J. Qu, P. Prasad, and S. Leucht, *Should we treat depression with drugs or psychological interventions? A reply to Ioannidis.* Philos Ethics Humanit Med, 2011. **6**: p. 8.
15. Tsatalas, T., G. Giakas, G. Spyropoulos, V. Paschalis, M.G. Nikolaidis, D.E. Tsaopoulos, . . . Y. Koutedakis, *The effects of muscle damage on walking biomechanics are speed-dependent.* Eur J Appl Physiol, 2010. **110**(5): p. 977-88.
16. Tsarouhas, A., M. Iosifidis, D. Kotzamitelos, G. Spyropoulos, T. Tsatalas, and G. Giakas, *Three-dimensional kinematic and kinetic analysis of knee rotational stability after single- and double-bundle anterior cruciate ligament reconstruction.* Arthroscopy, 2010. **26**(7): p. 885-93.
17. Paschalis, V., M.G. Nikolaidis, A.A. Theodorou, G. Giakas, A.Z. Jamurtas, and Y. Koutedakis, *Eccentric exercise affects the upper limbs more than the lower limbs in position sense and reaction angle.* J Sports Sci, 2010. **28**(1): p. 33-43.
18. Paschalis, V., M.G. Nikolaidis, G. Giakas, A.A. Theodorou, G.K. Sakellariou, I.G. Fatouros, . . . A.Z. Jamurtas, *Beneficial changes in energy expenditure and lipid profile after eccentric exercise in overweight and lean women.* Scand J Med Sci Sports, 2010. **20**(1): p. e103-11.
19. Moustakidis, S.P., J.B. Theocharis, and G. Giakas, *A fuzzy decision tree-based SVM classifier for assessing osteoarthritis severity using ground reaction force measurements.* Med Eng Phys, 2010. **32**(10): p. 1145-60.
20. Lazaridis, S., E. Bassa, D. Patikas, G. Giakas, A. Gollhofer, and C. Kotzamanidis, *Neuromuscular differences between prepubescent boys and adult men during drop jump.* Eur J Appl Physiol, 2010. **110**(1): p. 67-74.
21. Paschalis, V., M.G. Nikolaidis, G. Giakas, A.Z. Jamurtas, and Y. Koutedakis, *Differences between arms and legs on position sense and joint reaction angle.* J Strength Cond Res, 2009. **23**(6): p. 1652-5.
22. Paschalis, V., M.G. Nikolaidis, G. Giakas, A.Z. Jamurtas, E.O. Owolabi, and Y. Koutedakis, *Position sense and reaction angle after eccentric exercise: the repeated bout effect.* Eur J Appl Physiol, 2008. **103**(1): p. 9-18.
23. Nikolaidis, M.G., V. Paschalis, G. Giakas, I.G. Fatouros, G.K. Sakellariou, A.A. Theodorou, . . . A.Z. Jamurtas, *Favorable and prolonged changes in blood lipid profile after muscle-damaging exercise.* Med Sci Sports Exerc, 2008. **40**(8): p. 1483-9.
24. Moustakidis, S.P., J.B. Theocharis, and G. Giakas, *Subject recognition based on ground reaction force measurements of gait signals.* IEEE Trans Syst Man Cybern B Cybern, 2008. **38**(6): p. 1476-85.
25. Shaaban, H., G. Giakas, M. Bolton, R. Williams, P. Wicks, L.R. Scheker, and V.C. Lees, *Contact area inside the distal radioulnar joint: effect of axial loading and position of the forearm.* Clin Biomech (Bristol, Avon), 2007. **22**(3): p. 313-8.
26. Paschalis, V., M.G. Nikolaidis, G. Giakas, A.Z. Jamurtas, A. Pappas, and Y. Koutedakis, *The effect of eccentric exercise on position sense and joint reaction angle of the lower limbs.* Muscle Nerve, 2007. **35**(4): p. 496-503.
27. Paschalis, V., M.G. Nikolaidis, I.G. Fatouros, G. Giakas, Y. Koutedakis, C. Karatzaferi, . . . A.Z. Jamurtas, *Uniform and prolonged changes in blood oxidative stress after muscle-damaging exercise.* In Vivo, 2007. **21**(5): p. 877-83.
28. Paschalis, V., G. Giakas, V. Baltzopoulos, A.Z. Jamurtas, V. Theoharis, C. Kotzamanidis, and Y. Koutedakis, *The effects of muscle damage following eccentric exercise on gait biomechanics.* Gait Posture, 2007. **25**(2): p. 236-42.

29. Nikolaidis, M.G., V. Paschalis, G. Giakas, I.G. Fatouros, Y. Koutedakis, D. Kouretas, and A.Z. Jamurtas, *Decreased blood oxidative stress after repeated muscle-damaging exercise*. Med Sci Sports Exerc, 2007. **39**(7): p. 1080-9.
30. Koutedakis, Y., H. Hukam, G. Metsios, A. Nevill, G. Giakas, A. Jamurtas, and L. Myszkewycz, *The effects of three months of aerobic and strength training on selected performance- and fitness-related parameters in modern dance students*. J Strength Cond Res, 2007. **21**(3): p. 808-12.
31. Shaaban, H., G. Giakas, M. Bolton, R. Williams, P. Wicks, L.R. Scheker, and V.C. Lees, *The load-bearing characteristics of the forearm: pattern of axial and bending force transmitted through ulna and radius*. J Hand Surg Br, 2006. **31**(3): p. 274-9.
32. Ristanis, S., N. Stergiou, K. Patras, H.S. Vasiliadis, G. Giakas, and A.D. Georgoulis, *Excessive tibial rotation during high-demand activities is not restored by anterior cruciate ligament reconstruction*. Arthroscopy, 2005. **21**(11): p. 1323-9.
33. Paschalis, V., Y. Koutedakis, V. Baltzopoulos, V. Mougios, A.Z. Jamurtas, and G. Giakas, *Short vs. long length of rectus femoris during eccentric exercise in relation to muscle damage in healthy males*. Clin Biomech (Bristol, Avon), 2005. **20**(6): p. 617-22.
34. Iossifidou, A., V. Baltzopoulos, and G. Giakas, *Isokinetic knee extension and vertical jumping: are they related?* J Sports Sci, 2005. **23**(10): p. 1121-7.
35. Tsepis, E., G. Vagenas, G. Giakas, and A. Georgoulis, *Hamstring weakness as an indicator of poor knee function in ACL-deficient patients*. Knee Surg Sports Traumatol Arthrosc, 2004. **12**(1): p. 22-9.
36. Tsepis, E., G. Giakas, G. Vagenas, and A. Georgoulis, *Frequency content asymmetry of the isokinetic curve between ACL deficient and healthy knee*. J Biomech, 2004. **37**(6): p. 857-64.
37. Stergiou, N., C. Moraiti, G. Giakas, S. Ristanis, and A.D. Georgoulis, *The effect of the walking speed on the stability of the anterior cruciate ligament deficient knee*. Clin Biomech (Bristol, Avon), 2004. **19**(9): p. 957-63.
38. Shaaban, H., G. Giakas, M. Bolton, R. Williams, L.R. Scheker, and V.C. Lees, *The distal radioulnar joint as a load-bearing mechanism--a biomechanical study*. J Hand Surg Am, 2004. **29**(1): p. 85-95.
39. Pomeroy, V.M., S.H. Chambers, G. Giakas, and M. Bland, *Reliability of measurement of tempo-spatial parameters of gait after stroke using GaitMat II*. Clin Rehabil, 2004. **18**(2): p. 222-7.
40. Ristanis, S., G. Giakas, C.D. Papageorgiou, T. Moraiti, N. Stergiou, and A.D. Georgoulis, *The effects of anterior cruciate ligament reconstruction on tibial rotation during pivoting after descending stairs*. Knee Surg Sports Traumatol Arthrosc, 2003. **11**(6): p. 360-5.
41. Pomeroy, V.M., J. Mickelborough, E. Hill, P. Rodgers, G. Giakas, and J.A. Barrett, *A hypothesis: self-propulsion in a wheelchair early after stroke might not be harmful*. Clin Rehabil, 2003. **17**(2): p. 174-80.
42. Georgakis, A., L.K. Stergioulas, and G. Giakas, *Fatigue analysis of the surface EMG signal in isometric constant force contractions using the averaged instantaneous frequency*. IEEE Trans Biomed Eng, 2003. **50**(2): p. 262-5.
43. Stergiou, N., G. Giakas, J.B. Byrne, and V. Pomeroy, *Frequency domain characteristics of ground reaction forces during walking of young and elderly females*. Clin Biomech (Bristol, Avon), 2002. **17**(8): p. 615-7.
44. Georgakis, A., L.K. Stergioulas, and G. Giakas, *Automatic algorithm for filtering kinematic signals with impacts in the Wigner representation*. Med Biol Eng Comput, 2002. **40**(6): p. 625-33.
45. Chockalingam, N., G. Giakas, and A. Iossifidou, *Do strain gauge force platforms need in situ correction?* Gait Posture, 2002. **16**(3): p. 233-7.
46. Chockalingam, N., P.H. Dangerfield, G. Giakas, J. Dorgan, and T. Cochrane, *Examination of relative movement between the back and lower limb*. Stud Health Technol Inform, 2002. **88**: p. 95-9.
47. Chockalingam, N., P.H. Dangerfield, G. Giakas, T. Cochrane, and J.C. Dorgan, *Computer-assisted Cobb measurement of scoliosis*. Eur Spine J, 2002. **11**(4): p. 353-7.
48. Chockalingam, N., P.H. Dangerfield, G. Giakas, and T. Cochrane, *Study of marker placements in the back for opto-electronic motion analysis*. Stud Health Technol Inform, 2002. **88**: p. 105-9.
49. Bayat, A., H. Shaaban, G. Giakas, and V.C. Lees, *The pulley system of the thumb: anatomic and biomechanical study*. J Hand Surg Am, 2002. **27**(4): p. 628-35.
50. Pomeroy, V.M., B. Evans, M. Falconer, D. Jones, E. Hill, and G. Giakas, *An exploration of the effects of weighted garments on balance and gait of stroke patients with residual disability*. Clin Rehabil,

2001. **15**(4): p. 390-7.
51. Giakas, G., L.K. Stergioulas, and A. Vourdas, *Time-frequency analysis and filtering of kinematic signals with impacts using the Wigner function: accurate estimation of the second derivative*. J Biomech, 2000. **33**(5): p. 567-74.
 52. Karatzaferi, C., G. Giakas, and D. Ball, *Fatigue profile: a numerical method to examine fatigue in cycle ergometry*. Eur J Appl Physiol Occup Physiol, 1999. **80**(5): p. 508-10.
 53. Giakas, G., V. Baltzopoulos, and R.M. Bartlett, *Improved extrapolation techniques in recursive digital filtering: a comparison of least squares and prediction*. J Biomech, 1998. **31**(1): p. 87-91.
 54. Giakas, G. and V. Baltzopoulos, *A comparison of automatic filtering techniques applied to biomechanical walking data*. J Biomech, 1997. **30**(8): p. 847-50.
 55. Giakas, G. and V. Baltzopoulos, *Optimal digital filtering requires a different cut-off frequency strategy for the determination of the higher derivatives*. J Biomech, 1997. **30**(8): p. 851-5.
 56. Giakas, G., V. Baltzopoulos, P.H. Dangerfield, J.C. Dorgan, and S. Dalmira, *Comparison of gait patterns between healthy and scoliotic patients using time and frequency domain analysis of ground reaction forces*. Spine (Phila Pa 1976), 1996. **21**(19): p. 2235-42.

4.4 Articles in Journals not Indexed in Bibliographical Databases

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5 REFEREED INTERNATIONAL CONFERENCE PRESENTATIONS

More than 100 presentations

6 INVITED PRESENTATIONS

1. Giakas G (2012). Functional calibration modeling: the way forward. Greek Society of Biomechanics, Thessaloniki Greece.
2. Giakas G (2009). Gait analysis applications. Northern Greece Orthopaedic Association seminar, Naousa, Greece.
3. Giakas G (2009). Gait analysis worldwide standards. Northern Greece Orthopaedic Association. Thessaloniki, Greece.
4. Giakas G (2009). Foot scanning and orthotics. University Hospital of Ioannina biannual seminar. Ioannina, Greece
5. Giakas G (2008). Gait Analysis: an Introduction. European Bobath Tutors Association, Chania Greece 18-20 September.
6. Giakas G (2008). Gait Analysis: the Davies model. European Bobath Tutors Association, Chania Greece 18-20 September.
7. Giakas G (2004). Changes in walking and running after eccentric exercise. 2004 Pre-Olympic Congress. Thessaloniki, Greece
8. Giakas G (2003). Importance of muscle function and chronicity in anterior cruciate ligament deficient patients. International Symposium on Prevention and Therapy of Sports Injuries. Larisa, Greece
9. Giakas G (2003). Biomechanical data filtering: problems and solutions. 6th International Conference on Strength Training. Serres, Greece
10. Giakas G (2002). Data filtering in Sports Biomechanics. 20th International Society of Biomechanics in Sports, Caceres, Spain
11. Giakas G (2002). Applications of biomechanics in lower limb injury. 1st Aegean Knee Surgery Arthroscopy Days. 15-17 February, Pamukkale, Turkey.
12. Giakas G (1999). Automatic data filtering in Sports Biomechanics: Filtering Solutions. Data Filtering Workshop. XVII International Symposium of Biomechanics in Sports. Perth, Australia.

7 MISCELLANEOUS

Reviewer for the following journals:

Journal of Biomechanics

Journal of Applied Biomechanics

Clinical Biomechanics

Journal of Sport Sciences

European Journal of Applied Physiology and Occupational Physiology

British Journal of Sports Medicine

Journal of Clinical Rehabilitation

IEEE Transactions of Biomedical Engineering

Dynamics of Continuous, Discrete and Impulsive Systems