

Slobodan JARIĆ



Bio:

Education

University of Belgrade, Physics, Belgrade, Yugoslavia 1976 B.S.

University of Belgrade, Biomedical Engineering, Belgrade, Yugoslavia 1981 M.S.

University of Belgrade, Kinesiology, Belgrade, Yugoslavia 1986 Ph.D.

Professional Experience

2009-present, School of Kinesiology, University of Zagreb, Adjunct Professor

2007-present, Graduate Program, School of Sport and Physical Education, University of Belgrade, Adjunct Professor

2007-present, University of Delaware, Department of Health, Nutrition, and Exercise Sciences, Newark, Delaware, Professor

2002-2007, University of Delaware, Department of Health and Exercise Sciences, Newark, Delaware Associate, Professor

2000-2002, University of Umea, Sweden, Sports Medicine, Associate Professor

1999-2002, National Institute for Working Life, Center for Musculo-Skeletal Research, Umea, Sweden, Senior Scientist

1993-1998, Institute for Medical Research, Belgrade, Yugoslavia, Professor

1993-1998, Faculty for Physical Education, Belgrade University & Institute for Medical Research, Belgrade, Yugoslavia, Associate Professor

1988-1993, Faculty for Physical Education, Belgrade University & Institute for Medical Research, Belgrade, Yugoslavia, Assistant Professor

tests of neuromuscular function

Nickolas Emge (M.S. student of Exercise Sciences, University of Delaware)

Bojan Leontijevic (PhD student in Experimental Studies of Human Locomotion, Belgrade University)

Ivan Cuk (PhD student in Experimental Studies of Human Locomotion, Belgrade University)

Nemanja Pazin (PhD student in Experimental Studies of Human Locomotion, Belgrade University)

Bobana Berjan (PhD student in Experimental Studies of Human Locomotion, Belgrade University)

Paulo Barbosa de Freitas (PhD student in Biomechanics and Movement Science Interdisciplinary Program, University of Delaware), thesis defended 2009.

Vennila Krishnan (PhD student in Biomechanics and Movement Science Interdisciplinary Program, University of Delaware), thesis defended 2009.

Predrag Bozic (PhD student in Experimental Studies of Human Locomotion, Belgrade University), thesis defended 2011.

Mehmet Uygur (PhD student in Biomechanics and Movement Science Interdisciplinary Program, University of Delaware), thesis defended 2012.

Xin Jin (M.S. student of Biomechanics and Movement Science Interdisciplinary Program, University of Delaware), thesis defended 2011.

Recent Publications

Freitas PBJ de, Krishnan V, Jaric S (2007) Elaborate force coordination of precision grip could be generalized to bimanual grasping techniques. *Neuroscience Letters*, 412:179-184

Nedeljkovic A, Mirkov DM, Kukolj M, Ugarkovic D, Jaric S (2007) Effects of maturation on the relationship between physical performance and body size. *Journal of Strength and Conditioning Research*, 21:245-50

Nedeljkovic A, Mirkov DM, Pazin N, Jaric S (2007) Evaluation of Margaria staircase test: the effect of body size. *European Journal of Applied Physiology*, 100:115-20

Markovic G, Jaric S (2007) Is vertical jump height a body size independent measure of muscle power? *Journal of Sport Sciences*, 25:1355 - 1363

Markovic G, Jaric S (2007) Positive and negative loading and mechanical output in maximum vertical jumping. *Medicine & Science in Sports & Exercise*, 39(10):1757-1764

- Freitas PB de, Krishnan V, Jaric S (2007) Force coordination in static manipulation tasks: effects of the change in direction and handedness. *Experimental Brain Research*, 183:487-497
- Krishnan V, Freitas PB de, Jaric S. (2008) Impaired object manipulation in mildly involved individuals with multiple sclerosis. *Motor Control*, 11:3-20
- Sjolander P, Michaelson P, Jaric S, Djupsjobacka M. (2008) Sensorimotor disturbances in chronic neck pain--range of motion, peak velocity, smoothness of movement, and repositioning acuity. *Manuel Therapy* 13(2):122-31
- Freitas PB de, Markovic G, Krishnan V, Jaric S. (2008) Force coordination in static manipulation: Discerning the contribution of muscle synergies and cutaneous afferents. *Neurosci Lett* 434(2):234-9
- Mirkov DM, Nedeljkovic A, Kukolj M, Ugarkovic U, Jaric S. (2008) Evaluation of the reliability of soccer-specific field tests. *J Strength Conditioning Res* 22(4):1046-50
- Krishnan V, Jaric S. (2008) Hand function in multiple sclerosis: force coordination in manipulation tasks, *Clinical Neurophysiology* 119(10):2274-81
- Freitas PB de, Krishnan V, Jaric S. (2008) Force coordination in object manipulation. *Journal of Human Kinetics* 20:37-51
- Suzovic D, Nedeljkovic A, Pazin N, Planic N, Jaric S (2008) Evaluation of consecutive maximum contractions as a test of neuromuscular function. *Journal of Human Kinetics* 20:51-67
- Nedeljkovic A, Mirkov DM, Bozic P, Jaric S (2009) Tests of muscle power output: the role of body size. *International Journal of Sport Medicine* 30:100-106 2.
- de Freitas PB, Jaric S. (2009) Force coordination in static manipulation tasks performed using standard and non-standard grasping techniques. *Exp Brain Res*, 194:605–618
- Jaric S, Markovic G (2009) Leg muscles design: the maximum dynamic output hypothesis, *Med Sci Sports Exercise*, 41(4):780-787
- Uygun M, Richards JG, Jaric S, de Freitas PB, Barlow DA (2009) Kinematics and kinetics of unanticipated misstep conditions: Femoral fracture implications in the elderly. *J Biomech* 42(9): 1241-1245
- de Freitas PB, Uygun M, Jaric S. (2009) Grip force adaptation in manipulation activities performed under different grasping and coating conditions. *Neurosci Lett* 457:16-20
- Nedeljkovic A, Mirkov DM, Markovic S, Jaric S (2009) Tests of muscle power output assess rapid movement performance when normalized for body size. *J Strength Conditioning Res* 23(5): 1593-1605
- Mackenzie SJ, Getchell N, Modlesky CM, Miller F, Jaric S (2009) Using grasping tasks to evaluate hand force coordination in children with hemiplegic cerebral palsy. *Arch Phys Med Rehabil* 90(8):1439-42
- Uygun M, de Freitas PB, Jaric S. (2010) Frictional properties of hand skin areas specialized and non-specialized for grasping. *Ergonomics* 53(6):812-818

- Uygun M, de Freitas PB, Jaric S. (2010) Effects of force range and frequency on force coordination in static manipulation. *Neuroscience Letters* 475:115-119
23. Mirkov D, Kukolj M, Ugarkovic D, Koprivica V, Jaric S. (2010) Development of anthropometric and physical performance profiles of young elite male soccer players: a longitudinal study. *J Strength & Conditioning Res*, 24:2677-2682
- Krishnan V, Jaric S. (2010) Effects of task complexity on coordination of inter-limb and within-limb forces in static bimanual manipulation. *Motor Control* 14:528-544
- Bozic P, Suzovic D, Nedeljkovic A, Jaric S. (2011) Alternating consecutive maximum contractions as a test of muscle function. *Journal of Strength and Conditioning Research* 25:1605-1615
- Pazin N, Bozic P, Bobana B, Nedeljkovic A, Jaric S. (2011) Optimum loading for maximizing muscle power output: the effect of training history. *European Journal of Applied Physiology* 111:2123-2130
- Markovic G, Vuk S, Jaric S. (2011) Effects of jump training with negative versus positive loading on jumping mechanics. *International Journal of Sports Medicine*, 32: 365-372
- Belumori M, Jaric S, Knight CA. (2011) The rate of force development scaling factor (RFD-SF): protocol, reliability and muscle comparisons. *Experimental Brain Research* 212:359-369
- Jin X, Uygun M, Getchell N, Hall SJ, Jaric S (2011) The effects of instruction and hand dominance on grip-to-load force coordination in manipulation tasks. *Neuroscience Letters*, 504:330-335
- Koropanovski N, Berjan B, Bozic PR, Pazin N, Sanader A, Jovanovic S, Jaric S. (2011) Comparison of anthropometric and physical performance profiles of elite karate kumite and kata competitors *J Human Kinetics* 30:107-114
- Vuk S, Markovic G, Jaric S. (2012) External loading and power output during vertical jumping: role of training history. *Hum Mov Sci* 31:139-151
- Bozic P, Pazin N, Berjan B, Jaric S. (2012) Evaluation of alternating consecutive maximum contractions as an alternative test of neuromuscular function, *Eur J Appl Physiol* 112:1445-1456
- Leontijevic B, Pazin N, Bozic P, Kukolj M, Ugarkovic D, Jaric S. (2012) Effects of unloading on maximum vertical jumps: selective effects of weight and inertia. *Journal of Electromyography and Kinesiology* 22:286-293
- Bacvarevic BB, Pazin N, Bozic PR, Mirkov D, Kukolj M, Jaric S (2012) Evaluation of a composite test of kicking performance. *J Strength Conditioning Res* 26:1945-1952
- Leontijevic B, Pazin N, Kukolj M, Ugarkovic D, Jaric S. Selective effects of weight and inertia on maximum lifting performance: Explosive bench press throws. *Int J Sport Med*, in press
- Pazin N, Berjan B, Nedeljkovic A, Markovic G, Jaric S. Power output in vertical jumps: does optimum loading depend on activity profiles? *Eur J Appl Physiol*, in press

Bozic PR, Celik O, Uygur M, Knight CA, Jaric S. Evaluation of novel tests of neuromuscular function based on brief muscle contractions. *J Strength Conditioning Res*, in press

Uygur M, Xin J, Knezevic O, Jaric S. Two-dimensional static manipulation tasks: does force coordination depend on change of the tangential force direction? *Exp Brain Res*, in press

Research Interests:

Motor Control

Sports Biomechanics

Evaluation of Movement Performance