

## REPORT OF THE 4<sup>TH</sup> INTERNATIONAL CONFERENCE ON KINESIOLOGY “SCIENCE AND PROFESSION – CHALLENGE FOR THE FUTURE”

Opatija, Croatia, September 7 – 11, 2005

The 4<sup>th</sup> International Conference on Kinesiology, under the title “Science and Profession – Challenge for the Future”, was held in Opatija from 7<sup>th</sup> to 11<sup>th</sup> September, 2005, in the Congress Centre of the Grand Hotel Adriatic. It was organized by the Faculty of Kinesiology, University of Zagreb, Croatia, in cooperation with the Faculty of Sport, University of Ljubljana, Slovenia, and under the traditional high patronage of the Croatian Academy of Sciences and Arts.

More than 350 delegates and contributors – scholars, researchers, novices and postgraduate doctoral students, as well as practitioners of kinesiology in education, sport, physical recreation and kinesiotherapy from 27 countries (Austria, Bosnia and Herzegovina, Bulgaria, Byelorussia, Croatia, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Iran, Italy, Lithuania, Macedonia, Norway, Poland, Slovakia, Slovenia, South Africa, South Korea, Switzerland, Japan, Ukraine, the United Kingdom, the United States of America and Serbia and Montenegro) from four continents, participated in the three-day conference

work. In five plenary and thirteen thematic parallel sessions and three poster displays a total of 228 conference contributions were presented (out of 235 submitted). There were also 30 invited eminent speakers from fourteen countries (Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Finland, Germany, Great Britain, Hungary, Italy, Japan, Poland, Slovenia and the the United States of America).

Members of the Organizing Committee – Chair: Dragan Milanović (Faculty of Kinesiology FK, University of Zagreb - UZ, Croatia), Administrative Secretary: Tatjana Trošt (FK, UZ, Croatia), Mato Bartoluci (FK, UZ, Croatia), Bojan Jošt (Faculty of Sport, University of Ljubljana, Slovenia), Natalija Babić (FK, UZ, Croatia), Milan Čoh (Faculty of Sport, University of Ljubljana, Slovenia), Emil Hofman (FK, UZ, Croatia), Željko Hraski (FK, UZ, Croatia), Milan Hosta (Faculty of Sport, University of Ljubljana, Slovenia), Željka Jaklinović-Fressl (FK, UZ, Croatia), Drago Kalajžić (FK, UZ, Croatia), Hrvoje Sertić (FK, UZ, Croatia), Tomislav Šepec (Zagreb Sports Association, Croatia), Tomaž



*Poster presentation*

Pavlin (Faculty of Sport, University of Ljubljana, Slovenia), Franjo Prot (FK, UZ, Croatia), Dinko Vuleta (FK, UZ, Croatia), and Milan Žvan (Faculty of Sport, University of Ljubljana, Slovenia), as well as the Faculty of Kinesiology as a whole, put a great deal of effort into the life of the Conference. We are glad that the organisation and technical support went well.

Most credits for the success of the Conference go to the members of the Scientific Committee who set the programme and served also as reviewers: Franjo Prot, Chairman, FK, UZ, Croatia, Mirna Andrijašević, FK,UZ, Croatia, Mato Bartoluci, FK,UZ, Croatia, Jakob Bednarik, Faculty of Sport, University of Ljubljana, Slovenia, Herman Berčič, Faculty of Sport, University of Ljubljana, Slovenia, Petr Blahuš, Division of Methodology, Department of Kinanthropology, Charles University, the Czech Republic, Steven N. Blair, Cooper Institute for Aerobics Research, Dallas, USA, Jan Borms, retired from the Faculty of Physical Education and Physical Therapy, Vrije Universiteit, Brussels, Belgium, Ksenija Bosnar, FK,UZ, Croatia, Saša Cecić-Erpič, Faculty of Sport, University of Ljubljana, Slovenia, Dubravka Ciliga, FK,UZ, Croatia, Nevenka Čavlek, Faculty of Economics, University of Zagreb, Croatia, Milan Čoh, Faculty of Sport, University of Ljubljana, Slovenia, Paul De Knop, Vrije University, Brussel, Belgium, Edvin Dervišević, Faculty of Sport, University of Ljubljana, Slovenia, Gudrun Doll-Tepfer, Institute of Sport Science, Freie University, Berlin, Germany, Mojca Doupona-Topič, Faculty of Sport, University of Ljubljana, Slovenia, Vladimir Findak, FK,UZ, Croatia, Tetsuo Fukunaga, Department of Sports Sciences, Waseda University, Saitama, Japan, Kenneth Hardman, University College, Worcester, the United Kingdom, Stjepan Heimer, FK,UZ, Croatia, Wildor Hollmann, German Sport University, Cologne, Germany, Željko Hraski, FK,UZ, Croatia, Mike Hughes, Centre for Performance Analysis, UWIC, Cyncoed, Cardiff, the United Kingdom, Bojan Jošt, Faculty of Sport, University of Ljubljana, Slovenia, Igor Jukić, FK,UZ, Croatia, Damir Karpljuk, Faculty



*Opening Ceremony.*

*First row (from the left): Romana Caput-Jogunica, Ksenija Bosnar, Franjo Prot, Tetsuo Fukunaga, James S. Skinner, Ilkka Vuori, Steven Blair, Paavo V. Komi, Mato Bartoluci, Dragan Milanović, Dinko Vuleta, Bojan Jošt, Aleksa Bjeliš, Mladen Petrovečki, Petar Strčić, Slobodan Kaštela, Włodzimierz Starosta, Radovan Medved.*

*Second row (from the left): Magda Borms, Jan Borms, Marjeta Mišigoj-Duraković, Vladimir Medved, Stanislav Peharec and his associates, Jozsef Tihanyi, Ken Hardman, Erich Müller, Elfi Müller, Otmar Weiss, Julijan Malacko, Vladimir Findak.*

of Sport, University of Ljubljana, Slovenia, Peter Keller, Seco Staatssekretariat für Wirtschaft, Ressort Tourismus, Bern, Switzerland, Paavo Komi, Research Institute for Olympic Sport, University of Jyväskylä, Finland, Otmar Kugovnik, Faculty of Sport, University of Ljubljana, Slovenia, Håkan Lanshammar, Systems and Control, Department of Information Technology, Uppsala University, Sweden, Bojan Leskošek, Faculty of Sport, University of Ljubljana, Slovenia, Branka Matković, FK,UZ, Croatia, Vladimir Medved, FK,UZ, Croatia, Dragan Milanović, FK,UZ, Croatia, Marjeta Mišigoj-Duraković, FK,UZ, Croatia, Erich Müller, Faculty of Sport Science and Kinesiology, University of Salzburg, Austria, Tomaž Pavlin, Faculty of Sport, University of Ljubljana, Slovenia, Benjamin Perasović, Institute of Social Sciences Ivo Pilar, Zagreb, Croatia, Izet Rađo, Faculty of Sport and Physical Education, University of Sarajevo, Bosnia and Herzegovina, Thomas Reilly, Research Institute for Sport and Exercise Sciences, John Moores University, Liverpool, the United Kingdom, Boris Sila, Faculty of Sport, University of Ljubljana, Slovenia, James S. Skinner, Department of Kinesiology, Indiana University, USA, Janko Strel, Faculty of Sport, University of Ljubljana, Slovenia, Vojko Strojnik, Faculty of Sport, University of Ljubljana, Slovenia, Jozsef Tihanyi, Hungarian University of Physical Education, Budapest, Hungary, Katarina Tomljenović-Borer, Department of Movement Science, Division of Kinesiology, University of Michigan, USA, Matej Tušak, Faculty of Sport, University of Ljubljana, Slovenia, Anton Ušaj,

Faculty of Sport, University of Ljubljana, Slovenia, Hana Valkova, Faculty of Physical Culture, Department of Adapted Physical Education, Palacký University, Olomouc, the Czech Republic, František Vaverka, Department of Biomechanics and Engineering Cybernetics, Faculty of Physical Culture, Palacký University, Olomouc, the Czech Republic, Ilkka Vuori, UKK Institute for Health Promotion Research in Tampere, Finland, Rajko Vute, Faculty of Education, Department of Special Education, University of Ljubljana, Slovenia, Otmar Weiß, European Association for Sociology of Sport, Institute of Sport Science, University of Vienna, Austria, Paul Wylleman, Faculty of PE and Physiotherapy - Faculty of Psychology and Education, Vrije University, Brussel, Belgium, Tsvetan Zhelyazkov, National Sports Academy, Studentski grad, Sofia, Bulgaria, and Zoran Žugčić, FK,UZ, Croatia.

Much credit for the success of the Conference goes also to the rest of the reviewing team: Renata Barić, FK,UZ, Croatia, Marija Bratanić, Faculty of Transport and Traffic Engineering, University of Zagreb, Croatia, Romana Caput Jogunica, Faculty of Agriculture, University of Zagreb, Croatia, Mario Cifrek, Faculty of Electrical Engineering and Computing Science, University of Zagreb, Croatia, Edvin Dervišević, Faculty of Sport, University of Ljubljana, Slovenia, Dražan Dizdar, FK,UZ, Croatia, Till Hase, German Sportstudio Association, Hamburg, Germany, Saša Janković, FK,UZ, Croatia, Tanja Kajtna, Faculty of Sport, University of Ljubljana, Slovenia, Dražen Lalić, Faculty of Political Sciences, University of Zagreb, Croatia, Mirjam Lasan, Faculty of Sport, University of Ljubljana, Slovenia, Goran Marković, FK,UZ, Croatia, Mladen Mejovšek, FK,UZ, Croatia, Boris Neljak, FK,UZ, Croatia, Ivan Prskalo, Teacher Training College, Petrinja, Croatia, Donald N. Roberson, University of Georgia, USA, Lana Ružić,

FK,UZ, Croatia, Damir Sekulić, Faculty of Natural Sciences, Mathematics and Education, University of Split, Croatia, Davor Šentija, FK,UZ, Croatia, Branko Škof, Faculty of Sport, University of Ljubljana, Slovenia, Rajko Šugman, retired from the Faculty of Sport, University of Ljubljana, Slovenia, Boris Vukonić, retired from the Graduate School of Economics & Business, University of Zagreb, Croatia, Dinko Vuleta, FK,UZ, Croatia, and Jure Zovko, Institute of Philosophy, Zagreb, Croatia.

The Opening Ceremony was held on September 7, 2005 at 6:00 p.m. with the opening address of Mato Bartoluci, at that time the Dean of the Faculty of Kinesiology. Honorary guests also addressed the audience by their welcome speeches: FCA Petar Strčić, Croatian Academy of Sciences and Arts, Aleksa Bjeliš, Vice-rector of the University of Zagreb, Mladen Petrovečki, Assistant Minister for Science, Education and Sport, Bojan Jošt, Dean of the Faculty of Sport, University of Ljubljana, Slovenia, Włodzimierz Starosta, President of the International Association of Sport Kinetics, and Dragan Milanović, President of the Organising Committee of the 4<sup>th</sup> International Conference on Kinesiology.

The honour of opening the scientific programme was given to the two worldwide recognized scientists who gave their Opening Ceremony up-to-date lectures: Paavo Komi, from the Research Institute for Olympic Sport, University of Jyväskylä, Finland, who presented the work under the title *Neuromechanical function in exercise: experiences from the direct in-vivo measurements in humans*, and Steven Blair, from the Cooper Institute for Aerobics Research, Dallas, USA, who spoke about *Physical Inactivity: The major public health problem of the 21<sup>st</sup> century*.

The following three days the Conference proceeded with 5 plenary sessions and 13 parallel thematic sessions.

PLENARY SESSIONS AND CHAIRPERSONS	INVITED SPEAKERS	TITLE OF THE LECTURE
<b>September 8, 2005, morning</b> Romana Caput-Jogunica and Mato Bartoluci	Ken Hardman	Trends in physical education and society: Challenges for the physical education profession
	Nevenka Čavlek	Global trends in the development of sports tourism
<b>September 8, 2005, afternoon</b> Mirna Andrijašević, Stjepan Heimer and Igor Jukić	Ilkka Vuori	Advocating physical activity for health
	Joszef Tihanyi	Genetic and neural factors in adaptation of musculoskeletal system
<b>September 9, 2005, morning</b> Marjeta Mišigoj-Duraković and Dragan Milanović	Erich Müller	Biomechanics in elite sport performance
	James S. Skinner	How important are genetic factors for training?
<b>September 9, 2005, afternoon</b> Ksenija Bosnar and Franjo Prot	Giovanni Buccino	Learning by imitation
	Mike Hughes	Creating a performance profile using perturbations in soccer
<b>September 10, 2005, morning</b> Dubravka Ciliga, Benjamin Perasović and Vladimir Medved	Otmar Weiss	The new sport and health paradigm – a socio-economic analysis
	Gudrun Doll-Tepner	APA and sport for persons with a disability – current issues and challenges
	Tetsuo Fukunaga	Muscle and tendon interactions during human movement

In the plenary sessions, held in the Congress Hall, the eminent invited speakers highlighted authoritatively the state-of-the-art and probable courses of the development in the particular fields of their scientific interest. The lectures were well received and enjoyed by all, irrespective of individual scientific interests. They undoubtedly accomplished their aims of stimulating debates and furthering knowledge.

There were eleven thematic sections. Contributions were presented in altogether 13 parallel sessions. The invited introductory lectures opened almost every thematic session (except Management of Sport).

During the Conference three poster presentations, parallel in contents to the plenary and thematic sessions of the same day, were organised each day between 13:20 and 14:20. Altogether, 96 posters were exhibited and debated in the Convention Centre halls. The authors were obliged to be at the disposal of the audience at their exhibits to present them personally. All the three poster displays were well attended, but many participants visited them prior to the morning or afternoon sessions as well. These fairly vivid "unscheduled" hours provided extra communication opportunities of a less formal nature.

The 900 pages proceedings book, with 227 papers in total, and CD were published prior to the Conference. Each participant was provided with a copy of both items.

PRALLEL THEMATIC SESSIONS AND CHAIRPERSONS	INTRODUCTORY SPEAKERS	TITLE OF THE LECTURE
PHYSICAL EDUCATION Ken Hardman, Janko Strel, Vladimir Findak and Ivan Prskalo	Paul De Knop	The necessity of quality, quality assessment and quality control in physical education
SPORT FOR ALL, FITNESS AND HEALTH-RELATED ACTIVITIES Steven N. Blair, Ilkka Vuori, Stjepan Heimer, Mirna Andrijašević, Rado Pišot, Herman Berčič and Judith Bokor	Herman Berčič and Boris Sila	Connecting kinesiological and medical professions and science in the field of recreational sport and its developmental dynamics in Slovenia
	Rado Pišot and Zlatko Fras	Some characteristics of the health enhancing motor/sports activity behaviours in the Slovene population
PHYSICAL CONDITIONING Igor Jukić, Vojko Strojnik and Joszef Tihanyi	Tsvetan Zhelyazkov	Methodological and applicable aspects of the conditional training of elite sportsmen - football
	Vojko Strojnik	Physical conditioning and movement techniques
TOP LEVEL SPORT Milan Čoh, Tsvetan Zhelyazkov, Emanuel Johannes Spamer, Bojan Jošt, Włodzimierz Starosta and Dinko Vuleta	Thomas Reilly and Barry Drust	Talent identification and development In soccer
	Bojan Jošt et al.	Modelling of sport performance theory and management of preparation of athletes
	Włodzimierz Starosta	Changeability of level coordination abilities and sport techniques in world elite ski jumpers
	Dragan Milanović et al.	Methodology of scientific research on team sport games in Croatia
BIOLOGY AND MEDICINE OF SPORT AND EXERCISE Jan Borms, Marjeta Mišigoj-Duraković, Branka R. Matković	Katarina Tomljenović Borer	Exercise, bone mineral and osteoporosis
SPORT PSYCHOLOGY Ksenija Bosnar, Matej Tušak, Paul Wylleman and Saša Cecić-Erpič	Paul Wylleman	The career development of elite athletes: A sport psychological perspective
SOCIOLOGY, HISTORY AND PHILOSOPHY OF SPORT Otmar Weiss, Tomaž Pavlin and Benjamin Perasović	Tomaž Pavlin	From sport history to the history of sport
BIOMECHANICS Vladimir Medved, Tetsuo Fukunaga and František Vaverka	František Vaverka	Laterality and the effectivity of human movement – the biomechanical point of view
ADAPTED PHYSICAL ACTIVITY AND SPORT FOR THE DISABLED Dubravka Ciliga, Gudrun Doll-Tepper and Damir Karpljuk	Hana Válková	Adapted physical activity – university study in Central Europe: Development and recent situation
	Rajko Vute	Swimming towards independence
RESEARCH METHODOLOGY Mike Hughes, Petr Blahuš, Bojan Leskošek and Franjo Prot	Petr Blahuš	Kinesiology as a branch of behavioural science (call for a "reform", including PhD study)

Apart from the introductory presentation, each thematic session hosted a certain number of oral or poster presentations as follows:

THEMATIC SECTIONS	PRESENTATION	
	ORAL	POSTER
PHYSICAL EDUCATION	10	10
SPORT FOR ALL, FITNESS AND HEALTH-RELATED ACTIVITIES	9	13
MANAGEMENT OF SPORT	17	7
PHYSICAL CONDITIONING	4	9
TOP LEVEL SPORT	15	20
BIOLOGY AND MEDICINE OF SPORT AND EXERCISE	6	15
SPORT PSYCHOLOGY	12	4
SOCIOLOGY, HISTORY AND PHILOSOPHY OF SPORT	11	3
BIOMECHANICS	6	6
ADAPTED PHYSICAL ACTIVITY AND SPORT FOR THE DISABLED	5	4
RESEARCH METHODOLOGY	4	5

The 4<sup>th</sup> International Conference on Kinesiology was formally declared concluded at the Closing Ceremony on Saturday, September 11, 2005. The president of the Scientific Committee, Franjo Prot gave a short report of the four-day work of the Conference. After that, the Young Researchers' Awards were ceremonially declared. Renata Barić, Faculty of Kinesiology, University of Zagreb, Croatia, won the first prize in the oral presentation competition with the contribution entitled *Towards a new, integrated model of dispositional and*

*situational determinants of motivation climate in sport*. The second prize in the competition of oral presentations was given to Goran Marković, Faculty of Kinesiology, University of Zagreb, Croatia, who participated with the contribution entitled *Allometric scaling of muscle power to body size: the effect of stretch-shortening cycle*. Three participants divided the third prize: Elena Pocecco, Austria, with the contribution entitled *Physiological profiles of judo athletes and climbers: a comparison*, Sanja Šimek, Croatia, with the contribution entitled: *The effect of proprioceptive training on jumping performance*, and Reza Abdollahi Pour, Iran, with the paper entitled *The effects of internal versus external focus of attention to the learning of a balance task in the presence of an audience*. Marko Aleksandrović, Serbia and Montenegro, received the Young Researchers' Award for his poster presentation entitled *Morphological space structure of 12 year-old water polo players and non-sportsmen*.

During the Closing Ceremony it was announced that the Young Researchers' Award of the 5<sup>th</sup> Conference on Kinesiology, that will be held in 2008, will be named "Young Researchers' Award Miloš Mraković" in honour of the deceased professor Miloš Mraković from the Faculty of Kinesiology, University of Zagreb, Croatia, who incessantly promoted kinesiology as a science during his life, thus significantly contributing to its affirmation among other scientific fields and disciplines.

### The journal KINESIOLOGY Editorial Board meeting



The members of the Kinesiology Editorial Board and their guests:

Sitting (from the left): Tatjana Trošt, Marija Rakovac, Marjeta Mišigoj-Duraković, Anita Hökelmann, Gudrun Doll-Tepper, Darija Omrčen.

Standing (from the left): Reza Abdollahi Pour, Milan Čoh, Emanuel J. Spamer, Tsvetan Zhelyazkov, Stjepan Heimer, Dinko Vuleta, Petr Blahuš, Ivan Prskalo, Ken Hardman, Jozsef Tihanyi, Dragan Milanović, Radovan Medved, Vladimir Medved, Włodzimierz Starosta, Izet Rađo, Jan Borms, Bojan Jošt, Vichren Bachev & Benjamin Perasović.

On Sunday, September 11, 2005 at 9 a.m. 24 members of the international Editorial Board of the journal *Kinesiology* and some guests participated in the meeting at the Grand Hotel Adriatic Bellavista Hall. In the atmosphere of collaboration knowledge and experience in editing scientific journals in the field of kinesiology were generously shared. When discussing the position of *Kinesiology* in the world, the need was pointed out to consider the scientific relevance and quality of the submitted papers first, and then the geographical coverage of authors in terms of the need to make this journal important for scientists from many countries which would then contribute to the significance of *Kinesiology* in general. Quality of the published material inform people that such a journal exists in that field, because there are many similar journals and that means serious competition.

It was also pointed out that the Editorial Board should contact experienced scientists to write the fundamental review papers in the field they research

and in which they are outstanding scientists. Every future issue of *Kinesiology* should have one review article of that kind. The suggestion to open a new section about sociology, history and philosophy of sport was also given.

Dragan Milanović, Editor-in-Chief, proposed Gudrun Doll-Tepper, Anita Hökelmann, and Izet Rado as new members of the Editorial Board, which was unanimously accepted.

Opatija, the Grand Hotel personnel and citizens of Opatija were excellent hosts to the Conference and its participants, considerably contributing to its success.

The Conference revealed again all the impressive diversity and strength of the field of science and emphasized its interdisciplinary nature. We hope that the trend in the rates of participation and in the quality of contributions and debates will be continued through the Fifth Conference on Kinesiology in 2008.

*Collected, written and edited by*

*Tatjana Trošt, Marija Rakovac and  
Željka Jaklinović-Fressl*