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## International Society of Biomechanics in Sports Newsletter



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## **ISBS ELECTIONS 2002**

## Whom are you voting for? John Blackwell

The following information has been compiled by John Blackwell, Secretary General of ISBS. John has set up an online form where ISBS members in good standing may cast their vote: <a href="http://www.usfca.edu/ess/isbs/ballot.html">http://www.usfca.edu/ess/isbs/ballot.html</a>

## **PRESIDENT**

#### **Bruce Elliott**

Bruce has been actively involved in ISBS for many years. He has given the Geoffrey Dyson Lecture and been a keynote or invited speaker at numerous ISBS conferences. He provides the mix of an academic who has published in international refereed journals (145) while also working with international sporting associations (tennis and cricket). He is currently a Fellow of the following professional associations:

- · Fellow, The Australian Council for Health, Physical Education and Recreation, 1982.
- · Fellow, The Australian Sports Medicine Federation, 1994.
- · Fellow, The Australian Institute of Biology, 1995.
- · International Fellow, American Academy of Kinesiology and Physical Education, 1999.
- · Fellow, The International Society of Biomechanics in Sports (ISBS), 2001.
- · Top Graduating Student, Physical Education Department, Sydney Teachers' College, 1965.
- · Most significant contribution to W.A. Tennis, Tennis Professionals Association, 1985 & 1992.
- · Geoffrey Dyson Award, International Society of Biomechanics in Sports, 1989.
- · Co-Supervisor, Young Investigator Award, Conference of International Society of Biomechanics of Sport, Prague, 1990: Perth, 1999
- · Australian Sports Commission, National Sport Research Program, Inaugural Sport Medicine Research Award, 1992.
- · F.C. Better Lecture, Victorian College of Sport Physicians, Melbourne, 1993.

- · Sir William Refshauge Lecture, Sports Medicine Australia National Conference, 1998.
- · Western Australian Sports Federation's Award of Merit, 1999.

Bruce was the Chair, 5th IOC World Congress on Sport Sciences, Sydney 1996-1999 and ran the Applied Sports Research Program at the Sydney 2000 Olympic Games. He is committed to ISBS and its ideals and would serve the association with vigour if elected.

#### **VP PUBLIC RELATIONS**

#### Mario Lamontagne

Dr. Mario Lamontagne received his PhD degree in Biomedical Engineering from the Ecole Polytechnique of Montreal at the University of Montreal. He is currently full professor in Biomechanics at the School of Human Kinetics of the University of Ottawa and he is also crossappointed at the Department of Mechanical Engineering at the same University. Dr. Lamontagne is actively involved in joint mechanics, muscle modelling, in vivo force measurements, electromyography, and sport In sport biomechanics, his biomechanics. interests are in kinematics and kinetics of skiing, golfing, and ice hockey skating. Dr. Lamontagne is actively involved in the biomechanics field for 20 years and more recently in Sports Biomechanics. He is an active member of the ISBS. For the past 5 years, he has regularly attended the ISBS conference. In 2000, he was invited by the Organizing Committee of the 18th International Symposium of Biomechanics in Sports in Hong Kong to deliver a Keynote lecture on "Application of Electromyography in Movement Studies". He also belongs to several other Biomechanics Societies and Organization (American Society of Biomechanics, Canadian Society for Biomechanics, International Society of Biomechanics, International Society of Electrophysiology and Kinesiology, IEEE section Biomedical, Human Factors Association of Canada, Ontario Association of Professional Ergonomists).

#### Jill McNitt-Grav

Dr. Jill L. McNitt-Gray is an Associate Professor with tenure at the University of Southern California. Dr. McNitt-Gray is Director of the Biomechanics Research Laboratory in the Department of Kinesiology. She also has a joint appointment in Biomedical Engineering and Biokinesiology and Physical Therapy. Her undergraduate training is in Mathematics and Statistics from Miami University in Oxford, OH. Dr. McNitt-Gray received her Doctoral Degree in the area of Biomechanics from The Pennsylvania State University in University Park, PA after completing her Masters Degree from The University of North Carolina in Chapel Hill, NC. Her research focuses on the control and dynamics of multijoint movement involving impact. She is an author of more than 20 publications and is the principal investigator on more than 30 external grants. She has served on review panels for the National Science Foundation and the Editorial Review Board for the Journal of Applied Biomechanics. Dr. McNitt-Gray is a member of the Executive Board of American Society of Biomechanics and the International Society of Biomechanics.

#### **VP PUBLICATIONS**

#### Young Hoo Kwon

Dr. Kwon's areas of interest are sport biomechanics in general, computer simulation and modeling of human motion, nderwater motion analysis in swimming and analysis software & system development (author of Kwon3D Motion Analysis Software). Dr. Kwon has been a member of ISBS since 1997, is a member of the Publication Committee (2000-), attended the ISBS Symposia since 1999, gave a (modeling, simulation keynote talk optimization) at ISBS 2000 and will be giving an applied session (acquisition and treatment procedures of biomechanics data) at ISBS 2002. 1988-1993, Ph.D. in Exercise and Sports Science (Biomechanics), Pennsylvania State University, University Park, Pennsylvania, USA. 1984-1986, M.Ed. in Physical Education (Biomechanics), Seoul National University, Seoul, Korea. 1980-1984, B.S. in Astronomy, Seoul National University, Seoul, Korea. 2002-, Associate Professor & Director, Biomechanics Lab, Texas

Woman's Univ., Denton, Texas, USA. 2001-2001, Associate Professor, Biomechanics Lab, Ball State University, Muncie, Indiana, USA. 1997-2001, Assistant Professor, Biomechanics Lab, Ball State University, Muncie, Indiana, USA. 1993-1997, Senior Researcher & Head, Biomechanics Dept., Korea Sport Science Inst., Seoul, Korea. Homepage: Kwon3D Motion Analysis Web (http://kwon3d.com).

#### VP PROJECTS AND RESEARCH

#### **Richard Smith**

In partnership with the NSW Institute of Sport I have developed an advanced on-water rowing performance measurement system which we have used for research related to the maximisation of rowing performance and for the biomechanical assessment of elite rowers. In collaboration with Assoc/Prof van Soest (Free University of Amsterdam) we are building a whole body, muscle-driven model of the rower. I am on a committee with the Australian Institute of Sport and industry partners to develop the next generation of rowing measurement systems. Investigation of the effect of athletic footwear on performance and control of foot motion during walking and running including why individuals responds differently to the wearing of shoes is another focus of my research activities. I have been involved in obtaining research grants totalling AUS\$3.3m and have 21 publications in international refereed journals and 76 in conference proceedings on rowing, walking and running. Current financial member (membership goes back to 1985). I am the current Vice President of Projects and Research. I am currently pursuing avenues for industry funding of research projects through the ISBS pending commercialisation of the Coaches Information Service (CIS) and I would like the opportunity to pursue that goal into a second term of office. I edit and contribute to the rowing pages of the CIS. I have served on the Scientific Committees for the 1999, 2000 and 2001 International Symposia on Biomechanics in Sport. I am an enthusiastic supporter of the goals of the ISBS to "bridge the gap between researchers and practitioners" and "gather and disseminate information and materials on biomechanics in sports".

## BOARD OF DIRECTORS (listed alphabetically)

#### Joao Abrantes

João is Full Professor of Biomechanics and also has the responsibility of the position of Vice Pro-Vost of the Technical University of Lisbon (UTL) and the director of the Laboratory of Biomechanics in the Human Kinetics Faculty / UTL. In this case João and his associated professors are the coordinators of several projects in the area of Sports and Ergonomics. The Laboratory of Biomechanics have two strong connections: first in the area of development the UTL with Mechanical Department were João is an associated research adviser in the area of numerical models development by inverse dynamics; second in the area of clinical application by the Gait Laboratory in the Center of Rehabilitation Medicine. He attended his first ISBS conference in Athens in 1987 and served as a member of the board of directors since 1992. João was the chairman of ISBS 1996 in Madeira.

#### Barbara Gowitzke

Barbara has been a member of ISBS since 1984. and a member of the Board of Directors since 1985. She has enthusiastically participated in every ISBS Symposium, and has made many presentations since 1984 (except 1992). Barbara was Vice-President and Chair of the Awards Committee for six years and Acting Vice-President of Awards for one year. She currently serves as a member of the Awards Committee. Barbara's research interests include biomechanical and neurophysiological principles applied to sport with a special emphasis on badminton. Barbara's publications include two editions of a textbook, Scientific Bases of Human Movement, several papers in refereed journals as well as conference proceedings, and Editor and/or member of the Scientific Committee for several editions of the ISBS symposium proceedings.

In retirement, Barbara has continued her interest in biomechanics as it applies to the sport of badminton. She also has worked on the problem of smoking as a health issue since 1980, serving as President of the Hamilton Council on Smoking and Health for eight years. She continues to be active in the Ancaster Horticultural Society, and is currently serving her third year as President.

#### **Hans Gros**

In 1976 Hans received a Diploma in Physical Education from the University of Mainz. Thereafter he studied Biomechanics under Dr. Terauds in Edmonton, Canada and earned a MSc (1978) and a PhD (1982). Since 1981 he has worked in Stuttgart teaching mainly Biomechanics, Skiing and Track & Field. Hans' primary research interests are in the areas of biomechanics applied to Track and Field (analysis of events at various WC and OG), Archery (Cooperation with the German national team) and equipment design for safety and performance (mainly gymnastics). Hans was a founding member of ISBS. He attended most of the conferences and served in various capacities on the Board of Directors and the Executive of ISBS. Most notably he edited the Newsletter in the mid-eighties, served as President 1998 / 99, Vice President Publications 2000 / 2002, Chair of the Quality Control Committee of CIS, and is Webmaster of the ISBS WWW site.

### Ellen Kreighbaum

Dr. Ellen Kreighbaum is a "charter member" of ISBS having served on the steering committee for its inception in 1978. She has served on the executive board as President Elect, President, and Past President and the Board of Directors since ISBS began, and has served on the Scientific Review Committee for numerous conferences. She served as host to the Sixth ISBS Symposium at Montana State University in Bozeman, MT, USA. She was awarded Life Membership in ISBS in 1998. Ellen is co-author of a successful Biomechanics textbook, Biomechanics: a qualitative approach for studying human movement, which is in its 4th edition. She co-edited and is author of several chapters in the book Sports and Fitness Equipment Design published by Human Kinetics. Ellen has authored biomechanics chapters in two texts outside of the biomechanics field-Fundamentals of Nursing Practice and the International Dance and Exercise Association Certification book. In addition, Ellen has

published numerous international, national, state, and local papers and presentations throughout her career.

In 1994, Ellen became Department Head of the Department of Health and Human Development at Montana State University, a position that she continues in at present. She continues to give guest lectures to students and serve on graduate committees in the exercise sciences.

#### Laurie Malone

Laurie became an active member of ISBS in 1995 and has presented at each annual symposium since that time. She has enjoyed serving the ISBS in a number of capacities including member of the Board of Directors (1998-2002), public relations committee, and scientific committee member for the past several symposia. In 1996 she received the New Investigator Award and most recently became part of the Sports Biomechanics advisory board. Laurie received her PhD from the University of Alberta with a specialization in biomechanics and adapted physical activity. Laurie's current research interests are in the area of disability sport, in particular wheelchair basketball and swimming. During the Sydney Paralympic Games, she was part of an international swimming research team that collected performance data and provided feedback for the athletes. Laurie currently teaches structural kinesiology, adapted physical activity, as well as undergraduate and graduate level biomechanics.

#### Margret McBride

Margret (Peggy) McBride commenced her academic training in Canada, obtaining a BA/BPHE (Queen's) and a MPE (UBC) before accepting a position as Sports Biomechanist at the Australian Institute of Sport (1989-1996). In 1998, she obtained a PhD from the University of Western Australia under the supervision of Prof. Bruce Elliot. Peggy is currently employed as the biomechanics lecturer at the Australian Catholic University (Sydney, Australia). As a member of the Canadian National Rowing competed team. Peggy at the Championships (1985, 1986) and Commonwealth Games (1986). This background enabled Peggy to utilise an practical approach when exposing elite rowers and coaches to the science of biomechanics. While at the AIS, she developed a telemetry system which allowed rowing coaches to instantaneously assess critical performance variables from the boat and the athletes. This technology proved to be a powerful coaching and research tool. Peggy is currently a member of the ISBS Board of Directors, has made several presentations at ISBS symposia, and was honoured to receive the New Investigator's Award at the ISBS Conference in Perth (1999). Peggy is seeking reelection as a Director to continue her active involvement within the Society.

#### Guillermo Noffel

Guillermo received his BA and MA degrees in Physical Education with a minor in Computer Science from San Diego State University. He was awarded a PhD in biomechanics from The University of Western Australia under the supervision of Dr. Bruce Elliott. He was appointed an Assistant Professor at Cal State Fullerton in 1996 with a charge to build and develop a biomechanics lab. His research interests include identifying shoulder loadings in dynamic sports such as baseball, tennis, volleyball and swimming. Guillermo is also interested in the injury mechanism associated with repeated eccentric insult and the EMG and mechanical changes seen in a fatiguing muscle. Results may have an effect on athlete training and rehabilitation protocols. Guillermo has been involved with the ISBS since 1996 and has presented at its conferences in Denton, Perth and San Francisco. Guillermo has authored/coauthored manuscripts in both scientific and applied journals (Journal Applied of Biomechanics, Journal of Sports Sciences, Medicine and Science in Sports and Exercise, Australian Journal of Science and Medicine in Sport, Research Quarterly for Exercise and Sport, Australian Tennis Magazine and the USTA Sport Science for Tennis). He has also presented over 25 papers at local, national and international conferences including the ISBS as an invited speaker for the Applied Program in 1999. Guillermo would be honored to become actively involved with the society and be a part of its growth and its continued commitment to disseminate information to athletes and coaches.

#### Renato Rodano

After completing qualifications as an Engineer in Bioengineering at the Politecnico di Milano, Renato worked as an Assistant Professor in the Department of Electronics and the Department of Bioengineering at the Politecnico di Milano. He is currently a Researcher at the same institute, coordinating a course on Rehabilitation Biomechanics. Rodano has also taught courses in "Biomechanics of Sport" at the School of Sports Medicine, Brescia, and "Biomechanics of Human Locomotion" at the School Orthopaedics, Milano, Italy. He has been involved in the development and application of devices and methodologies for non invasive analysis of human locomotion; analysis of EMG signals by means of pattern recognition procedures; analysis of motor coordination in analysis different sport activities; biomechanical interaction of sports equipment; and development of protocols for the evaluation of functional loss and bilateral asymmetries. As a member of the International Society of Biomechanics in Sports since 1984, he hosted the 10th International Symposium of ISBS, in Milano, Italy, in 1992. His enthusiasm for the society and respect by the members was reflected in his election as President of the Society in the 1995-96. In the recent past he was elected Vice President for Public relations, position that to date is covering.

#### **Karen Roemer**

Karen has been a member of ISBS since 1998 and has regularly attended ISBS Symposia since 1998. She is a member of the German "young investigators in sports science" speakers' committee. Her main research interest is biomechanical modelling, especially musculoskeletal models and inverse dynamics. Karen has worked for several years as a biomechanist and performance analyst in Olympic training centres. She currently teaches sports technology, biomechanics and cinematics at Chemnitz University.

#### Aki Salo

Aki has actively written both scientific and coaching related articles and has been accredited by the British Association of Sport and Exercise Sciences for both Research and Scientific Support in Biomechanics. He is also a member

of the British Olympic Association Performance Analysis Steering Group, and belongs to the UK Athletics Sport Science Co-ordination Panel providing scientific support for British sprinters and hurdlers.

The approach of Aki's research has always been from the practical sport and coaching perspective, i.e. performance related research. This approach has been emphasised on his past appointments by providing scientific service for athletes both in Finland and in England. The other area of research interest is on various methodological aspects of motion analysis. He is a regular participant at international conferences including ISBS symposiums. During the last two years Aki has been a member of the Board of Directors and is part of the By-Laws subcommittee. He regularly reviews articles for the Society's new Sports Biomechanics journal as a member of the Editorial Advisory Board.

#### Julie Steele

Julie Steele is an Associate Professor in Biomechanics in the Department of Biomedical Sciences at the University of Wollongong, Australia where she is Head of Biomechanics Research Laboratory and Coordinator of the Metabolic Research Centre. Her research over the past 20 years has focused on the biomechanics of injury prevention with a specific interest in mechanisms of lower extremity dysfunction, particularly anterior cruciate ligament injury and patellar tendon injury during dynamic landings. Her current research also includes biomonitoring applications of intelligent fabrics, breast movement and brassiere, footwear and falls in the elderly, and childhood obesity and functional performance. Julie has produced more than 40 scientific publications in refereed journals and has presented in excess of 100 papers at national and international conferences, predominantly on lower limb biomechanics. Her current professional roles include Secretary-General and Executive Council Member of the International Society of Biomechanics, Past President of the Australian & New Zealand Society Biomechanics, and Board Member of the International Society of Biomechanics in Sports. Julie has been a member of the Board of Directors of ISBS since 1993, serving as the ISBS Vice President (Publications) from 19962001 and has been a members of ISBS International Scientific Committees for Conferences since the 1997.

#### **Lothar Thorwesten**

Dr. Thorwesten is a senior scientist at the Institute of Sports Medicine, Westfälische Wilhelms University Münster, Germany. He has been a member of ISBS since 1997 and served

on the board of directors from 1999-2001. He is a member of the Editorial Advisory Board of the Sport Biomechanics Journal. His current research interests include Sensorimotor Control & proprioception in LBP-patients, Isokinetics, and Brace application in sports. Homepage:

http://medweb.uni-muenster.de/institute/spmed/mitarbeiter/thorwes.hmtl

## **Updates from the Executive**

## Treasurer, Giannis Giakas

## FAQ ISBS membership By M. Vieten

In the last couple of month our membership deduction and information service was interrupted. But now we are on the track again. For your information some remarks on ISBS membership regularities:

How to become an ISBS member?

You become a member by signing up on the internet and pay your membership fee.

How to do that?

Log into the ISBS homepage at <a href="http://www.uni-stuttgart.de/External/isbs/">http://www.uni-stuttgart.de/External/isbs/</a>.

Click onto Membership.

Click onto Join ISBS.

Fill up the form and click the "Send to ISBS" button.

Am I a member by than?

No, but the following will happen. You will receive an e-mail from ISBS (Normally inbetween two week) containing all the data you supplied and an access-code for the internet of the form:

https://www.uni-

konstanz.de/FuF/SportWiss/ISBS/Members/IDYour Name-xxxxxxxx.htm

This link will direct you to your secure ISBS internet page. The xxxxxxxxx stands for an arbitrary combination of characters and numbers. Make sure that you receive a line that starts with an <a href="https://">https://</a> not with an <a href="https://">https://</a> directs you to exactly the same

internet page but you will not be in the secure mode! Make also sure that the line ends with an <a href="https://www.htm">httm</a> otherwise you will not have the full information and surely get an error message "Fehler 404".

Once you successfully reached your internet page please check all data and correct them if necessary. Mark the years for which you want to pay the membership fee and give your credit card details. Click the "Send to ISBS" button and you are a member of ISBS.

How do I find out if my membership was processed?

After a couple of days go back to your ISBS membership page on the internet. There you will find the results of you changing your data and you will find your membership statement (indicated by "fee paid" for the respective year).

What do I have to do to receive the journal "Sports Biomechanics"?

Nothing! If you are a member in good standing and your mailing address is correct, you will receive the journal automatically.

What can I do when I forgot my ISBS access-code for the internet?

Log into the ISBS homepage at <a href="http://www.uni-stuttgart.de/External/isbs/">http://www.uni-stuttgart.de/External/isbs/</a>.

Click onto Membership.

Click onto Address Change or Renew Membership.

Fill up the form and click the "Send to ISBS" button.

Will I be reminded of my membership status?

Yes, once a year, around December or January, you will receive a statement giving you your membership details.

What if I have further questions? Who is the right person to approach?

According to your questions, there are different officers that can help you. To find the right contact please refer to the contact detail of the officers and directors at the ISBS homepage at <a href="http://www.uni-stuttgart.de/External/isbs/">http://www.uni-stuttgart.de/External/isbs/</a>.

## VP of Conferences and Meetings Youlian Hong

#### **ISBS2002**

The time for the Caceres symposium approaches. This is the first ISBS conference running in Europe in this century. Dr. Kostas Giannikllis, the conference Chairman, has prepared excellent academic and social activity program for international participants. Over 150 papers have been submitted and are under peer review. We have good reason to expect another successful ISBS conference in this century.

#### **ISBS2003**

Another historic event happened in this year is that we have endorsed the proposal submitted by Chinese Society of Sports Biomechanics for hosting ISBS2003. Thus ISBS Executive Committee are pleased to announce that 21st International Symposium on Biomechanics in Sports will be conducted in the next summer in Beijing. Professor Qing Wang, Chairman of ISBS2003, has promised to provide most attractive scientific and social programs to international delegates. He is very keen to use this opportunity to show their high academic standard and oriental hospitality. Following are the link base to ISBS2003:

Conference Chairman:
Qing Wang, PhD
Professor
President, China Society of Sports
Biomechanics

Conference Secretariat:

Xian-Dong Wang (Mr.) Secretary General, CSSB

#### Address:

National Research Institute of Sports Science 11 Ti-yu-guan Rd. Beijing, China 100061

Conference Fax: +86 10 6710 3176 Conference Tel: +86 10 67112233 2506 Conference email: <u>isbs2003@cssb2001.net</u> Web site: <u>http://www.cssb2001.net/isbs2003</u>

#### **ISBS2004**

It is a good time for interested members to submit proposal to host ISBS2004. As the proposal need to follow the correct format, when you prepare the proposal, please refer to ISBS web site, "How to submit a proposal to host an ISBS conference". You also need to show that your institution supports your For anyone wanting proposal. further information, please don't hesitate to contact me. According to the principle of Geographic Rotation, proposal from American Continent would receive higher priority of selection. The electronic file of the proposals should be sent to me (youlianhong@cuhk.edu.hk) before the deadline of 31 May 2002. Proposals will be reviewed at the conference in Caceres (July 2002).

#### **Conference Document**

I am preparing to update the present version of "How to submit a proposal to host an ISBS conference". Please share your opinions about the review procedure of a proposal and the requirement of proposal with me. Thank you in advance.

## VP of Publications Hans Gros

#### **Newsletter in Electronic Form**

This is the first ISBS Newsletter presented in electronic form only.

The first ISBS NL was printed in March,1984. The following ISBS members produced the NL in the last 18 years:

- Marlene Adrian, 1984 1985
- ➤ Kathy Barthels, 1985
- > Hans Gros, 1986 1989
- ➤ Bill Morrison, 1990 1991
- > Jerry Wilkerson 1992 1994
- ➤ Gary Moran 1995
- ➤ Julie Steele 1996 2000
- ➤ Hans Gros 2000 2002

The Newsletter was an important means of communication and vital to the smooth operation of the Society.

In the last years however, with new communication media like the WWW and e mail things are changing. Of roughly 700 current ISBS members only two asked for the

printed version of the NL, all others chose the download option. This will save a considerable amount of money for printing and mailing.

A further effect of the almost universal availability and usage of the new media is, that most information contained in the Newsletter can be found somewhere on the main ISBS homepage, the conference homepage or pages set up for a specific purpose (like the ongoing ISBS elections). This seems to reduce the need for a specific Newsletter, an item which will be discussed at the board meeting in Caceres.

Any ISBS member who wishes to have input into this discussion is asked to contact me by the end of April.

Hans Gros PhD
ISBS VP Publications
Institut fuer Sportwissenschaft
Universitaet Stuttgart
Allmandring 28
D 70569 Stuttgart
Germany

hans.gros@sport.uni-stuttgart.de



# XX International Symposium on Biomechanics in Sports

July, 1 – 5, 2002. Cáceres – SPAIN.



#### Scientific Program

Geoffrey Dyson Lecture: "The Evolution of High Jumping Technique - Biomechanical Analysis" Dr. J. Dapena. Indiana University (USA).

Special Invited Lecture: "Biomechanics and Control of multi - finger Prehension" Dr. V. M. Zatsiorsky. Penn State University (USA).

"Musculoskeletal Modelling and its Applications to Human Vertical Jumping" Dr. M. Bobbert. University of Amsterdam (Netherlands).

"Modeling and Computer Simulation in Sports Biomechanics"

Dr. S. McGuan. Mechanical Dynamics, Inc. (USA).

"Biomechanics of Front Crawl Swimming"

Dr. H. Toussaint. University of Amsterdam (Netherlands).

"Critical Issues in Applied Sport Biomechanics Research"

Dr. R. Rodano. Center of Bioengineering - Polytechnic of Milan (Italy).

"Biomechanics Applied on the Design and Testing of Sports Equipment and Footwear" Dr. J.V. Durá. Biomechanics Institute of Valencia (Spain).

"Aerodynamics Performances in Sports"

Dr. M. A. González Hernández. Madrid Polytechnic University (Spain).

"The Evolution of Disability Sport through Biomechanics"

Dr. L. Malone. University of Virginia (USA).

#### **Scientific Committee**

- Dr. Joao Abrantes (Portugal). Dr. Francisco Alves (Portugal).
- Dr. Diamantis Arampatzis (Germany). Dr. Raul Arellano (Spain).
- Dr. Kevin Ball (Australia). Dr. Vasilis Baltzopoulos (UK).
- Dr. Tony Bauer (Canada). Dr. John Blackwell (USA).
- Dr. Eugene Brown (USA). Dr. Angus Burnett (Australia).
- Dr. John W. Chow (USA). Dr. Manuel Delgado (Spain).
- Dr. Miguel Ángel Delgado (Spain). Dr. Juan V. Dura (Spain).
- Dr. Bruce Elliott (Australia). Dr. Wod Erdmann (Poland).
- Dr. Alfred Finch (USA). Dr. Alfonso Gazo (Spain).
- Dr. Giannis Giakas (Greece). Dr. Miguel A. González (Spain).
- Dr. Marcos Gutiérrez (Spain). Dr. Joseph Hamill (USA).
- Dr. Ewald Hennig (Germany). Dr. Youlian Hong (China).
- Dr. Patria Hume (New Zealand). Dr. Christina Kippenhan. (USA).
- Dr. Duane Knudson (USA). Dr. Jurgen Krug (Germany).
- Dr. Young-Hoo Kwon (USA). Dr. Mario Lamontagne (Canada).
- Dr. Jing-Xian Li (China). Dr. José Antonio López (Spain).
- Dr. Pekka Luhtanen (Finland). Dr. Laurie Malone (USA).
- Dr. Wayne Marino (Canada). Dr. Bruce Mason (Australia).
- Dr. Margaret McBride (Australia). Dr. Shawn McGuan (USA).
- Dr. Stuart Miller (United Kingdom). Dr. Antonio Oña (Spain).
- Dr. Klaus Peikenkamp (Germany). Dr. Spiros Prassas (USA).
- Dr. Renato Rodano (Italy). Dr. Ross Sanders (United Kingdom).
- Dr. Dietmar Schmidtbleicher (Germany). Dr. Richard Smith (Australia).
- Dr. Hermann Schwameder (Austria). Dr. Henrik Sorensen (Denmark).
- Dr. Victor Manuel Soto (Spain). Dr. Julie Steele (Australia).
- Dr. Lothar Thorwesten. (Germany). Dr. Huub Toussaint (Netherlands).
- Dr. Lefteris Tsarouchas. (Greece). Dr. Joao Paulo Vilas Boas (Portugal).
- Dr. Bing Yu (USA). Dr. Vladimir Zatsiorsky (USA).

#### **Applied Program**

#### Acquisition and Treatment Procedures of Biomechanical Data

"Experimental issues in data acquisition in Sport Biomechanics"

"Data filtering in Sports Biomechanics"

Young - Hoo Kwon - Giannis Giakas

#### --- Strength Training ---

"Biomechanical aspects of strength and strength training"

"Assessment of sport-specific dynamic strength using isokinetics"

Vladimir M. Zatsiorsky - Dietmar Schmidtbleicher - Vasilios Baltzopoulos

#### --- Swimming ---

"Underwater ondulatory swimming: kinematic characteristiques, generation of vortices and their applicability during the start and turn"

"Estimation of wave making resistance in front crawl swimming"

"New analysis procedures for giving feedback to swimming coaches and swimmers"

Ross Sanders - Huub Toussaint - Bruce Mason - Raúl Arellano

#### --- Gymnastics ---

"Vaulting mechanics"

"Mechanical loading and tissue response in gymnasts"

"Interaction between elastic surfaces and the human body and its effect on the gymnastic performance"

"Safety in gymnastics"

Spiros Prassas - Gert-Peter Brüggemann - Diamantis Arampatzis William Sands

#### --- Tennis ---

"Biomechanics applied to the tennis serve" - "Biomechanics and the backhand in tennis" - "The role of trunk angular momentum in the tennis serve" - "The role of trunk rotation in tennis groundstrokes" - "The role of Biomechanics in the "Game Approach" to teaching tennis" "The concept of core stability

"The role of Biomechanics in the "Game Approach" to teaching tennis" "The concept of core stability in tennis"

Bruce Elliott - Rafael Bahamonde - Miguel Crespo - Marchar Reid

#### --- Soccer ---

"Analysis of regulation and modified games for youth soccer"

"Integration of skill, game understanding and physical performance analysis in soccer"

Gene Brown - Pekka Luhtanen

ISBS 2002 PRELI	MINARY PROGRAM
Monday, 1st July 200	02
16:00 – 19:00	Office – registration
17:00 - 19:00	ISBS Pre – conference meeting
19:15 – 20:15	Opening Ceremony
21:00 - 23:00	Welcome Reception

Tuesday, 2nd July 20	002		
09:00 - 10:15	Goeffrey Dyson Memorial Lecture		
	Dr. Jesus Dapena		
10:15 - 11:00	Keynote Lecture: "Methodology and Instrumentation in Sports Biomechanics"		
	Dr. Renato Rodano		
11:00 – 11:30	Coffee Break, viewing Poster and Exhibition		
11:30 – 12:15	Keynote Lecture: "Biomechanics Applied on the Design of Sports Equipment		
	and Footwear"		
	Dr. Juan Vicente Durá		
12:15 – 13:15	Oral Communications		
13:15 – 14:30	Lunch		
14:30 - 15:30	Oral Communications		
15:30 - 16:15	Coffee Break, viewing Poster and Exhibition		
16:15 - 17:00	Keynote Lecture: "Modeling and Computer Simulation in Sports		
	Biomechanics"		
	Dr. Shawn McGuan		
17:15 – 18:15	Oral Communications		
18:15 – 19:15	General Meeting of ISBS		
19:30 – 22:30	Visit to the Monumental City of Trujillo		
Wednesday, 3rd July	2002		
09:00 - 09:45	Keynote Lecture: "Biomechanics of musculo - skeletal system"		
	Dr. Maarten Bobbert		
10:00 - 11:15	Oral Communications		
11:15 – 11:45	Coffee Break, viewing Poster and Exhibition		
11:45 – 13:00	Oral Communications		
13:00 - 14:30	Lunch		
14:30 - 15:30	Oral Communications		
15:30 - 16:15	Coffee Break, viewing Poster and Exhibition		
16:15 - 17:00	Keynote Lecture: "Biomechanics in Disability Sport"		
	Dr. Laurie Malone		
17:00 - 20:00	Applied Program		
20:45 –	Guided Visit to the Monumental Complex of Cáceres		
Thursday, 4th July 2	002		
09:00 - 09:45	Keynote Lecture: "Biomechanical Analysis and evaluation of Sport		
	Technique"		
	Dr. Huub Toussaint		
10:00 – 11:15	Oral Communications		
11:15 – 11:45	Coffee Break, viewing Poster and Exhibition		
11:45 – 13:15	Oral Communications		

13:15 – 14:30	Lunch
14:30 - 17:30	Applied Program
18:00 -	Guided Visit to the Roman Monuments in Mérida
Friday, 5th July 2002	
09:00 - 09:45	Special Invited Lecture
	Dr. Vladimir Zatsiorsky
10:00 - 10:45	Keynote Lecture: "Methodology and Instrumentation in Sports Biomechanics
	(II)"
	Dr. Miguel Ángel González Hernández
10:45 – 11:15	Coffee Break, viewing Poster and Exhibition
11:15 – 13:00	Oral Communications
13:00 - 14:30	Lunch
14:30 - 15:30	Oral Communications
15:30 – 16:15	Coffee Break
16:15 – 18:00	Oral Communications
18:30 – 19:15	ISBS 2003
21:15 - 23:30	Closing Banquet

#### **Honour Committee**

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Mrs. Ana M. Birulés y Beltrán. Minister of Science and Technology of the Spanish Government.

Mrs. Pilar del Castillo Vera. Minister of Education, Culture and Sport of the Spanish Government.

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Mr. Antonio Caperote Mayoral. President of the County of Caceres.

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Mr. Fernando del Villar Álvarez. Dean of Faculty of Sports Sciences. University of Extremadura.

Mr. Marcos Gutierrez Dávila. President of the Iberic Society of Biomechanics & Biomaterials.

#### **Important Dates**

Full paper submission by March 6, 2002. Notification of acceptance by April 4, 2002. Early registration by May 4, 2002. Congress Dates, July 1 - 5, 2002.

## **Contact Us**

email: isbs2002@unex.es e-mail: kgiannik@unex.es

URL: http://www.unex.es/congresos/isbs2002/

### Registration

DELEGATES	Early registration by May 4, 2002.	After May 4, 2002.
ISBS Members (in good standing)	315 €(euros)	375 €(euros)
Non-ISBS Members	375 €(euros)	400 €(euros)
Students (Full-time)	260 €(euros)	315 €(euros)
ACCOMPANYIN G PERSONS	260 €(euros)	275 €(euros)

### Registration fee covers:

Madrid airport courtesy pickup and drop off

Admission to all Scientific sessions and exhibitions

Scientific Proceedings

Satchel

Opening Banquet

Morning coffee – Lunch – afternoon coffee

Guided Visit to the Monumental Complex of Caceres

Visit to the Monumental City of Trujillo

Guided Visit to the Roman Monuments and the National Museum of Roman Art in Merida

#### Registration fee does not cover:

Sessions of Applied Program

Single session 35  $\leqslant$  two sessions 60  $\leqslant$  three sessions 80  $\leqslant$  more than three sessions 100  $\leqslant$  Closing Banquet (optional) 50  $\leqslant$ 

## Accommodation

HOTEL	RESERVE D ROOMS	PRICE PER NIGHT		
		TWIN	SINGLE	
Hotel Melia Cáceres * * * *	65	122.01 €+ 7% (Breakfast included)	122.01 €+ 7% (Breakfast included)	
Hotel Barceló V Centenario * * * *	110	108.18 €+ 7% (Breakfast included)	93.15 €+ 7% (Breakfast included)	
Hotel Extremadura * * * *	125	125.13 €+ 7% (Breakfast included)	101.25 €+ 7% (Breakfast included)	
Hotel NH Caceres Golf ***	60	80 €+ 7% (Breakfast not included)	80 €+ 7% (Breakfast not included)	
Hotel Iberia Plaza de América **	20	57.1 €+ 7% (Breakfast not included)	57.1 €+ 7% (Breakfast not included)	
Hotel Los Naranjos *	24	46.75 € (Breakfast not included)	30.05 € (Breakfast not included)	
Hotel Iberia *	25	57.1€ (Breakfast not included)	57.1€ (Breakfast not included)	

Facultad de Ciencias del Deporte. Av. de la Universidad s/n. 10071 Cáceres – SPAIN.

**e-mail:** kgiannik@unex.es FAX: + 34 927 257461. Tel: + 34 927 257460.

e-mail: <u>isbs2002@unex.es</u>

URL: <a href="http://www.unex.es/congresos/isbs2002">http://www.unex.es/congresos/isbs2002</a>

## **ISBS** Executive

**President:** Eugene Brown. <a href="mailto:ewbrown@msu.edu">ewbrown@msu.edu</a>

Past President: Ross H. Sanders r.sanders@ed.ac.uk

Vice President of Awards: Stuart Miller s.miller@lmu.ac.uk

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Vice President of Projects and Research: Richard Smith

R.Smith@cchs.usyd.edu.au

R.Smith@cchs.usyd.edu.au

Secretary-General: John Blackwell

Blackwell@usfca.edu

Treasurer: Giannis Giakas ggiakas@hope.man.ac.uk

## **Board of Directors**

#### 2000-2002

Joao Abrantes, Portugal

jabrantes@fmh.utl.pt

Ellen Kreighbaum, USA

ellenk@montana.edu

Pekka Luhtanen, Finland

pluhta@kihu.jyu.fi

Laurie Malone, USA

lamalone@saturn.vcu.edu

McBride, Margret, Australia

p.mcbride@mackillop.acu.edu.au

Aki Salo, England

A.Salo@bath.ac.uk

Henrik Sørensen, Demmark

h.sorensen@mai.ku.dk

Julie Steele, Australia

j.steele@uow.edu.au

Lothar Thorwesten, Germany

Lothar.thorwesten@uni-muenster.de

Barbara Gowitzke, Canada

gowitzke@hwcn.org

## 2001-2003

Jürgen Krug, Germany

krug@rz.uni-leipzig.de

Wayne Marino, Canada

wmarino@delta.uwindsor.ca

Spiros Prassas, USA

prassas@lamar.colostate.edu

Bing Yu, USA

byu@med.unc.edu

Christina Kippenhan, USA

ckippenhan@bemidjistate.edu

Patria Hume, New Zealand

p.hume@auckland.ac.nz

Kostas Gianikellis, Spain

kgiannik@cc.unex.es

John Chow, U.S.A.

Jchow@hhp.ufl.edu

Kelly Lockwood, Canada

lockwood@arnie.pec.brocku.ca

Hermann Schwameder, Austria

Hermann.schwameder@sbg.ac.at

Manfred Vieten, Germany

Manfred.vieten@uni-konstanz.de

Duane Knudson, USA

dknudson@csuchico.edu