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INTERNATIONAL SOCIETY OF BIOMECHANICS IN SPORT



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www.isbs.org

Newsletter

Volume: 31, Issue 2 - October 2015

Message from the President

Gareth Irwin

“I strongly believe the future of ISBS rests with maximising the engagement of scientists, coaches and clinicians through an outward facing, clear and transparent structure.”



It has been several months since our annual meeting at the 33rd ISBS Conference on Biomechanics in Sports held in Poitiers, France. I am sure you, as I do, share fond memories of meeting old colleagues and friends from around the world, entering into healthy academic debate and making new research contacts. On behalf of the ISBS Executive Committee and Board of Directors, and I am sure the membership, I would and would like to thank, once again, Dr Floren Colloud and his Team from Poitiers. The conference was of high quality from an academic and social perspective, and provided a first class ‘conference experience’.

At the Annual General meeting I had the privilege of taking over as President of ISBS. My appointment was made easy on account of the hard work Professor Joseph Hamill had undertaken during his tenure as President. I would like to thank him for his guidance and leadership and helping in making ISBS a strong academic society. We saw a number of new faces join the Board of Directors and Executive Committee, with representatives from Africa, America, Australia, Asia and Europe. I am very much looking forward to working with them to ensure that we serve the membership and build on the success of the recent years. The dedicated team of Vice Presidents and Directors are committed to ensuring the society continues to grow. In addition we saw the appointment of a new ISBS Student Representative, Madoka Kinoshita, Japan.



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Message from the President (cont.)

Gareth Irwin

... Madoka from the University of Tsukuba, Japan, has been a regular attender to ISBS conference and I am pleased to have her on our Team.

Sadly we saw the tenure of significant members of executive committee ISBS end this year, namely Professor Hermann Schwameder, Professor Duane Knudson, Professor Manfred Vieten and Professor John Ostarello. The whole of the ISBS thank you for your service and outstanding contributions.

My personal research philosophy is concurrent with the ISBS ethos of 'bridging the gap'. I strongly believe the future of ISBS rests with maximising the engagement of scientists, coaches and clinicians through an outward facing, clear and transparent structure. As an executive team we are making major steps to improve the experience and value of ISBS for current and future members. Central to the future is a new website with an effective and efficient payment system with wider levels of globalisation will bring about greater awareness of ISBS on the world stage.

I have been in contact with a number of major international Biomechanics Societies (European Society of Biomechanics, American Society of Biomechanics, International Society of Biomechanics and International Sports Engineering Association) and in the coming months I hope to provide some detail of how we will benefit from these closer working relationships.

In addition, Professor Silvio Lorenzetti who took over as treasurer in France, has worked tirelessly on the development of the new website. His work will result in refining the payment system and streamlining the financial conditions of the society, which will be a great asset to ISBS.

In closing, I encourage all to attend the 34th International Conference on Biomechanics in University of Tsukuba, Japan between 18-22 July 2016. As the team in Japan work on the research programme, I am confident that this event will provide an innovative and progressive academic forum.

It is a great pleasure to have the opportunity to serve you and I wish you all the best in your work and health in the upcoming future.

Professor Gareth Irwin, PhD, FISBS

President, International Society of Biomechanics in Sports

Editorial Board



Sarah Clarke

ISBS Vice President
(Publications)

Leeds Beckett University



Catherine Tucker

Leeds Beckett University

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**Dr. Floren Colloud
Conference host, 2015
ISBS Board of Director (2014-16)**



The 33rd Conference of the International Society of Biomechanics in Sports was held at the Faculty of Law on the main campus of the University of Poitiers, France. The University of Poitiers was honoured to host this conference with the involvement of Prime institute (RoBioSS), CNRS, ISAE ENSMA and CRITT Sport & Loisirs.

This year, almost 600 delegates came from 40 countries to Poitiers, which included 192 new members. The richness of this conference was due to the 400 oral (four parallel sessions) and poster presentations of participants but also to the nine keynotes presentations, eight pre-conference workshops and ten applied sessions.

For the very first time, the poster sessions were organised in two parts: an abbreviated oral presentation to summarise the paper and a question and answer session with the audience. The main goal was to give a better exposition to the papers presented as a poster. We hope that this initiative will be continued at future conferences.

We would like to address a huge thanks to the reviewers of the Scientific Committee for freely giving so much of their valuable time to ensure the scientific quality of the conference, to the chairpersons for having running each session smoothly and to the coordinators of applied sessions and pre-conference workshops for their great work. We would like also to thank all the exhibitors and sponsors of the conference. Their participation helped us to organise both pre-conference workshops and applied sessions. Their participation mainly contributed to the success of the conference.

As the same time as scientific programme, the organising committee was glad to propose a rich social programme to participants. In order to share a part of our culture and gastronomy, we organised the opening ceremony in a French history monument, the prefecture of Poitiers, five excursions around the conference site (Cognac, Château de la Loire, La Rochelle, Marais Poitevin and Parc du Futuroscope) and different events around local gastronomy (such as Wine and Cheese Night and Students Night). The gala dinner was housed in the impressive "Salle des pas perdus – Palais des ducs d'Aquitaine".

ISBS 2015 Post Conference Report

Furthermore, to encourage students of sport biomechanists, we provided reduced registration fee, special accommodation for student, organised a student mentoring programme with the help of Gerda Strutzenberger offered student travel grants. Thanks to these initiatives, 130 students participated in the conference.

Once again, thanks to all the participants, sponsors, exhibitors who have made the 33rd International Conference on Biomechanics in Sports a rewarding experience of tradition, culture, gastronomy and cutting-edge science.

We look forward to seeing you again in Tsukuba, Japan in 2016.

ISBS 2015 Sponsors and Exhibitors

Platinum Sponsor:

Sensix [<http://www.sensix.fr>]

Gold Sponsors:

AMTI [<http://www.amti.biz/>]

Vicon [<http://www.vicon.com/>]

Silver Sponsors:

Delsys [<http://www.delsys.com/>]

Kistler [<http://www.kistler.com/>]

Qualisys [<http://www.qualisys.com/>]

SIMI [<http://www.simicom/en/>]

TEA [<http://teaergo.com/site/>]

Trinoma [<http://trinoma.fr/>]

Bronze Sponsors:

Biometrics [<http://www.biometrics.fr/V4/>]

CODA Motion [<http://www.codamotion.com/>]

Hikob [<http://www.hikob.com/>]

Human Kinetics [<http://www.humankinetics.com/>]

Matsport [<http://www.matsport.com/lang/EN/>]

Natural Grass [<http://www.naturalgrass.com/>]

Société de Biomécanique [<http://www.biomecanique.org/>]

SOFAMEA [<http://sofamea.org/>]

STT Systems [<http://www.stt-systems.com/>]

Supersonic Imagine [<http://www.supersonicimagine.com/>]

Applied Sessions & Workshops Sponsors:

AMTI [<http://www.amti.biz/>]

APDM [<http://www.apdm.com/>]

Cometa [<http://www.cometasystems.com>]

CRITT Sport & Loisirs [<http://www.critt-sl.com/>]

Delsys [<http://www.delsys.com/>]

Kistler [<http://www.kistler.com/>]

Matsport [<http://www.matsport.com/lang/EN/>]

Qualisys [<http://www.qualisys.com/>]

Trinoma [<http://trinoma.fr/>]

Natural Grass [<http://www.naturalgrass.com/>]

Société de Biomécanique [<http://www.biomecanique.org/>]

SOFAMEA [<http://sofamea.org/>]

Sensix [<http://www.sensix.fr>]

Supersonic Imagine [<http://www.supersonicimagine.com/>]

Vicon [<http://www.vicon.com/>]

Exhibitors:

AllianTech [<http://www.alliantech.com/>]

Artinis [<http://www.artinis.com/>]

Contemplas [<http://www.contemplas.com/>]

C-Motion [<http://www.c-motion.com/>]

Fastec Imaging [<http://www.fastecimaging.com/>]

Gait Up [<http://www.gaitup.com/>]

Inertial Labs [<http://inertiallabs.com/>]

Motion Analysis [<http://www.motionanalysis.com/>]

Synertial [<http://synertial.com/>]

Tekscan [<https://www.tekscan.com/>]

Velamed [<http://www.velamed.com/>]

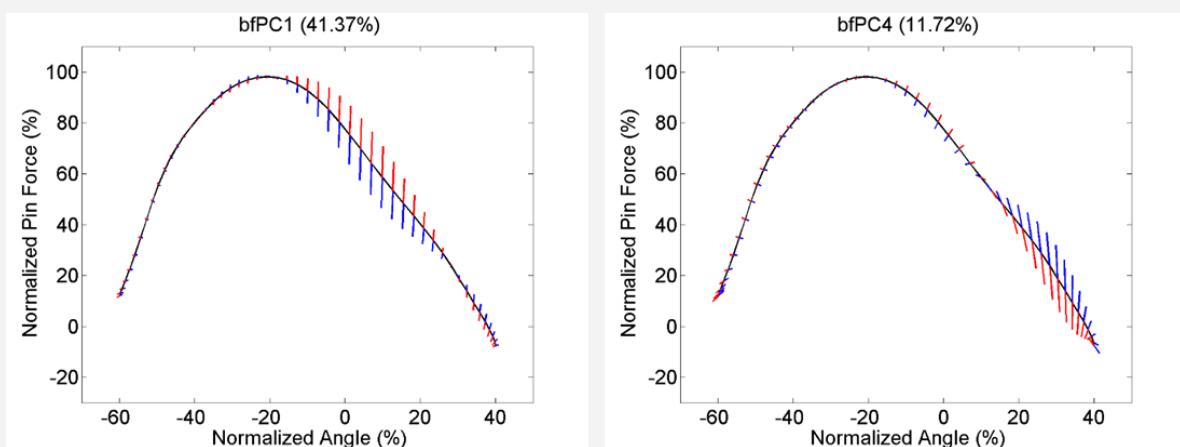
Xsens [<https://www.xsens.com/>]

John Warmenhoven**PhD Student, University of Sydney**

I am a PhD student with the University of Sydney undertaking a sports biomechanics project aiming to identify successful discriminants of performance in on-water rowing. My 2014 ISBS Student Mini Research Grant supported a collaboration with the University of Limerick to work with Dr. Drew Harrison, Dr. Norma Bargary and the University of Limerick biomechanics research group. As a part of this trip I received training regarding the use of Functional Data Analysis (FDA) techniques and trialed their application on an on-water rowing database as a part of my postgraduate research. This collaboration has assisted me greatly in shaping my PhD project and also provided me with new insights into how complex biomechanical data sets can be managed and analysed. I have also been very fortunate to return to the University of Limerick in 2015 prior to ISBS in Poitiers to continue this collaboration and to present a part of my work from this collaboration in the 2015 ISBS New Investigator Award. The aim of my paper presented at ISBS 2015 was to investigate whether changes noted between athletes in the shape of their propulsive pin force profiles were indicative of a higher competition level or a particular gender. Propulsive pin force was normalized to each rower's maximum force (making it a measure of relative force application) and was analysed as a function of the stroke cycle, measured as a percentage, and also as a function of stroke length, measured by the horizontal angle of the oar. Patterns of propulsive force visualized in these graphs has been known to differ between rowers. Despite this, how these patterns differs according to competition level or gender has not been identified. Two functional data analysis (FDA) techniques, functional principal components analysis (*fPCA*) and bivariate functional principal components analysis (*bfPCA*) were used on force-stroke cycle and force-angle data respectively to identify the main modes of variance in these curves, representing thirty eight rowers of different competition levels (national, underage international and open international competition levels) and different genders. Stepwise discriminant function analysis showed strong classification of rowers using force-stroke cycle and force-angle graphs according to gender, particularly for female rowers. Female rowers demonstrated a better ability to develop force early in the stroke and maintain force leading into the release at the end of force application, but males demonstrated a greater ability to maintain higher force production closer to the oar angle equaling zero degrees (being perpendicular to the hull of the boat). This is noted in Figure 1, where female athletes are more likely to resemble characteristics of the blue lines moving away from the mean curve, represented by the black line in each graph. Classification according to competition level showed weaker results, indicating that any gender effects should be accounted for or removed before exploring performance related factors. Despite this, FDA and particularly *bfPCA*, provided useful information for the assessment of rowing performance from a holistic perspective, preserving information across the stroke for two separate time-series variables.

I would like to thank both ISBS, Dr. Harrison, Dr. Bargary and the University of Limerick for this great opportunity!

Figure 1. The first and fourth principal components (PCs) from the *bfPCA* discriminated best for gender. On these graphs, rowers with a negative score for each PC are more likely to resemble the red lines and positive scorers are more likely to resemble the blue lines.

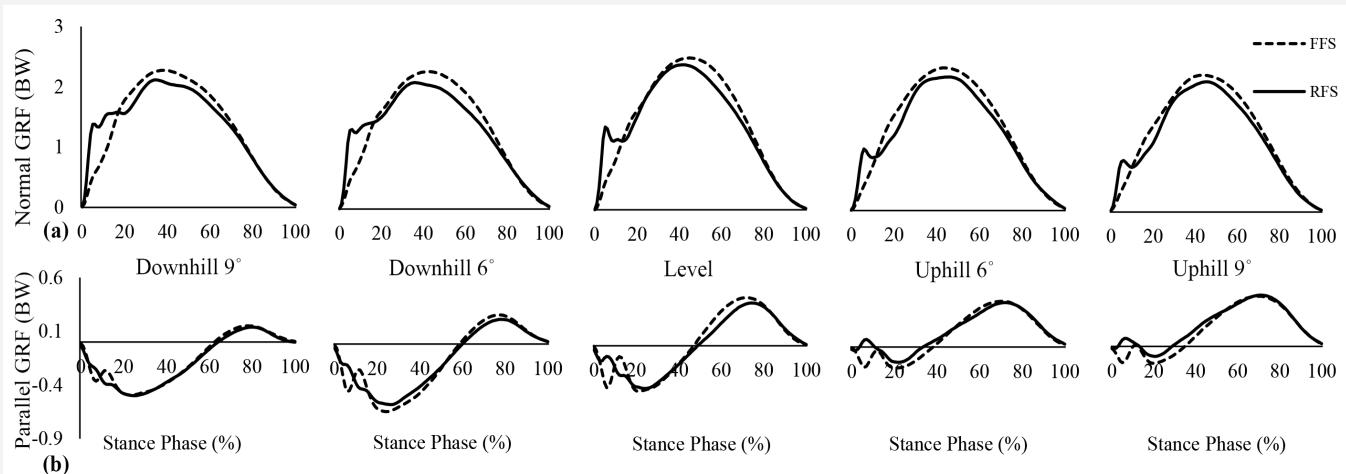




Kinematics and kinetics of the lower limb in uphill and downhill running: A comparison of forefoot strike and rearfoot strike runners

Level running is well researched at various speeds, however the reality is that many runners run outdoors where they often encounter hills. Most of our knowledge for hill running is limited to collection methods using instrumented treadmills with only a few publications examining overground running. Moreover, majority of hill running research is done using rearfoot strike runners and to our knowledge, no study has controlled for landing pattern during hill running. This study investigated the lower limb biomechanics during downhill and uphill running in habitual forefoot strike (FFS) and habitual rearfoot strike (RFS) runners. Fifteen habitual FFS and fifteen habitual RFS recreational male runners ran at $3 \text{ m/s} \pm 5\%$ during level, uphill and downhill overground conditions on a ramp mounted at 6° and 9° . Ten Vicon cameras (MX-13, Oxford Metrics, UK; 250 Hz) captured motion data and two Kistler force plates (model 92866AA, Kistler Instruments Corp, CH; 1000 Hz) recording ground reaction forces. Trials were cropped and time normalized to 100% stance phase. Motion data was filtered using a Woltring 15 MSE filter and analog data was filtered using a Butterworth 4th order, zero lag filter with a cut-off of 50 Hz. A two-way ANOVA was used to examine the effects of slope and landing pattern on the variables. A Bonferroni *post hoc* test was used to analyze where the differences occurred with significance set at $p < .01$. Results showed that hill running had similar impacts on joint angles in RFS and FFS runners, causing a decrease in hip flexion at initial contact during downhill running, an increase in knee flexion angle at initial contact during uphill running and a decrease in peak hip flexion angle. In addition to differences in ankle joint angle due to landing pattern differences, FFS runners had a more flexed hip angle during downhill running. FFS runners had an absent impact peak in all running conditions (Figure 1), while the impacts peaks only decreased during the uphill conditions in RFS runners. Active peaks decreased during the downhill conditions in FFS runners while loading rates increased during the downhill conditions in RFS runners. Compared to the level condition, parallel braking peaks were larger during downhill conditions and parallel propulsive peaks were larger during uphill conditions. Peak hip flexion moment was significantly greater while peak knee flexion moment was significantly lower in both groups during the downhill 9° condition. Forefoot strike runners had larger peak plantar flexion moments and peak ankle power absorption compared to RFS runner during all conditions, and decreased peak power absorption at the knee joint during downhill and level running conditions. Combined with previous biomechanics studies, our findings of no impact peak in FFS runners suggests that this landing pattern may have potential in reducing overuse running injuries. FFS running reduces loading at the knee joint and can be used as an effective strategy to reduce stress at the knee joint experienced with RFS running.

Figure 2: Vertical and parallel ground reaction forces in forefoot strike and rearfoot strike runners.



Neal Smith ISBS Vice President (Awards)



The Awards Committee announced the following awards for 2014:

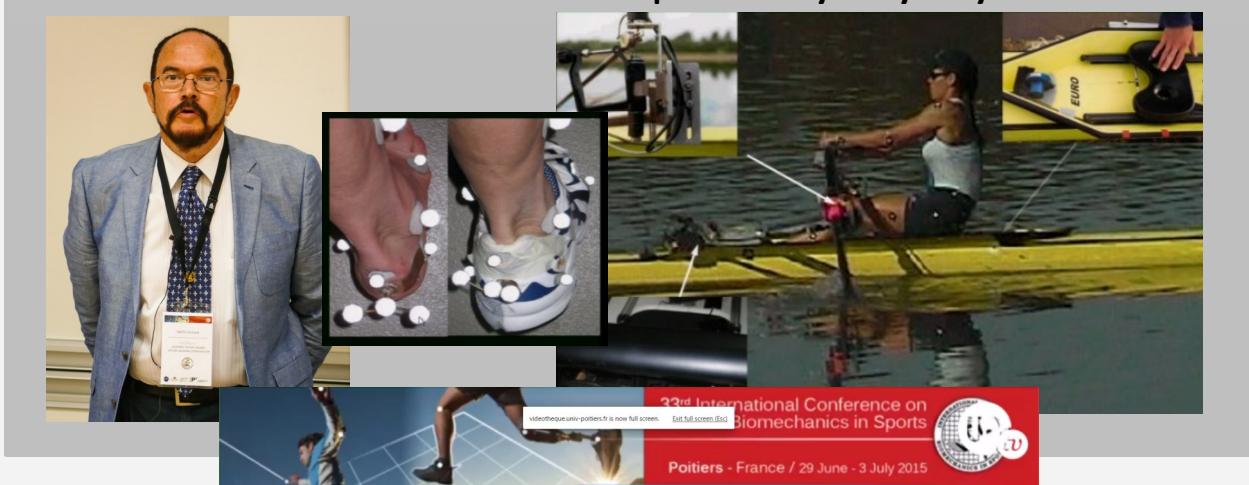
Geoffrey Dyson Award

The Geoffrey Dyson Award is the most prestigious award of ISBS. It recognizes sport scientists who, throughout their professional careers, have bridged the gap between biomechanics research and practice in sport.

The award is named after one of the founding fathers of Sports Biomechanics, Geoffrey Dyson OBE. (1915-1981). Geoffrey Dyson had a long and strong academic and coaching career. He was the coach of the British Olympic Team in 1952, 1956, and 1960. In 1962, he first published his book on the Mechanics of Athletics. He was a speaker for the International Olympic Academy and conducted athletic courses in 14 countries. According to John Disley, one of Geoffrey Dyson's favourite pupils, "he devoted his life to making coaching a science and to exposing the charlatan whose only effective advice was to Do it again, but harder".

This year's recipient was:

Professor Richard Smith | University of Sydney



Geoffrey Dyson Award
"Generating and applying knowledge in sports biomechanics:
examples from rowing and running"

Richard Smith

Professor
Smith's Key
Note Lecture
available here



The prestigious award for 2016 will be awarded to Professor Patria Hume – Auckland University of Technology

Life Member

A special membership category that is reserved for members who have made outstanding contributions to ISBS. The work of the member should have enabled ISBS to further develop and thrive. This work is not typically academic (research-related) and is therefore not covered by other ISBS awards. A life member has all of the privileges of membership but does not pay annual membership fees.

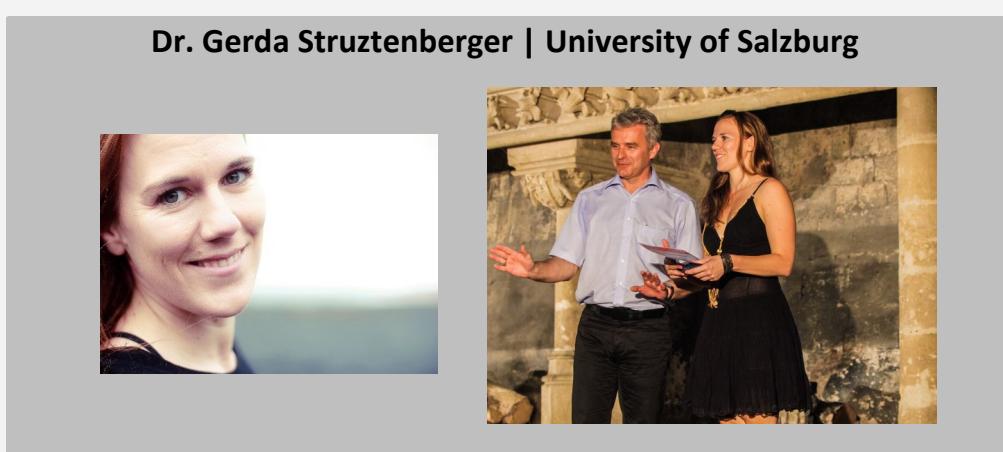
This year's recipients was:



Fellow of ISBS (FISBS)

The Fellow of ISBS award recognises substantial scholarly and service contributions to ISBS and Sports Biomechanics.

This year's recipients was Dr. Gerda Struztenberger



The Hans Gros Emerging Researcher



The Hans Gros Emerging Researcher Award recognizes excellence in early career research. This prestigious award is given annually to an individual who has excelled in their early research career (2-5 years post PhD) and has embodied the ISBS philosophy of applied science and 'bridging the gap' between research and application in practice.

The award was named to commemorate Hans Gros for his contribution to ISBS. Han Gros was a founding member of ISBS and was President in 1998-1999. Hans established the first ISBS website and was awarded Life Membership in 2001 in San Francisco. He was a faculty member at the University of Stuttgart in Germany and taught biomechanics, skiing, and track and field. His research interests focused on sports equipment design for gymnastics, archery, and the biomechanics of track and field.

This year's recipient of the Hans Gros Emerging Researcher Award was:

Dr Kimi Sato

East Tennessee State University, USA.



Kimi gave a presentation on 'Measuring bilateral asymmetry in a long term athlete monitoring'.



Measuring bilateral asymmetry in a long-term athlete monitoring

Kimitake Sato

Kimi's Lecture
available here



Proceedings

Read the papers
for all our
awardees on the
[ISBS 2015](#)
[website](#).

The New Investigator Award

2014 Award Summary

Geoffrey Dyson Award

Richard Smith,
University of Sydney

Life Member

Drew Harrison,
University of Limerick

Fellow of ISBS

Gerda Strutzenberger,
University of Salzburg

Hans Gros Emerging Researcher

Kimi Sato
East Tennessee State
University

New Investigator

John Warmenhoven -
University of Sydney
Nathalie Alexander,
University of Salzburg

The purpose of the New Investigator Award (NIA) is to recognise new researchers in Sports Biomechanics and to encourage them to become productive members of ISBS by expanding the base of knowledge of Sports Biomechanics through study and dissemination of information. The NIA was first awarded in Prague, Czechoslovakia as part of the 8th Symposium of ISBS. Since its inception, it has been contested on an annual basis as part of the annual conference.

New Investigator awards

Oral:



1. John Warmenhoven
University of Sydney, Australia

2. Michelle Manning
University of Kingston, UK

3. Ina Janssen
Netherlands Olympic Committee



Poster:

1. HiKari Naito
University of Tsukuba, Japan

2. Madoka Kinoshita
University of Tsukuba, Japan

3. Cassandra Conway
Australian Catholic University, Australia.

Call for ISBS Awards 2016

**Neal Smith
ISBS Vice President (Awards)**



The time has come for you to consider applying for the following awards:

Hans Gros Emerging Researcher Award

New Investigator Award

Please read the criteria for selection below. Applications for the New Investigator Award are due on Friday 5th February, 2016 and applications for the Emerging Researcher Award are due on Saturday 30th January, 2016. Only applications submitted by these dates will be considered by the ISBS Awards Committee for 2016. Check the list of previous recipients at www.isbs.org

Hans Gros Emerging Researcher Award

Included below are the criteria against which each nomination will be made.

The Hans Gros Emerging Researcher Award recognizes excellence in early career research. This prestigious award is given annually to an individual who has excelled in their early career (2-5 years post PhD) and has embodied the ISBS philosophy of applied science and 'bridging the gap' between research and application in practice. The winner will be invited to present his/her research at the [ISBS2016 conference](#) in Tsukuba, Japan.

Award Criteria is available on the [awards page](#) of the ISBS website

1. The applicant must be a current full member of ISBS for at least two consecutive years at the time of the ISBS2015 conference.
2. The applicant must be within two to five years of graduating with a PhD at the time of the ISBS2015 conference.

E.g. If the applicant graduated in 2013, then he/she can apply in the years 2015-2018.

Applicants whom have had a significant career interruption (e.g. maternity or paternity leave) during their first six years after graduating with a PhD should provide evidential documentation as a part of their application that includes the dates when they were on leave. A maximum of one additional year of eligibility can be granted by the Awards Committee due to a significant career interruption.

3. The applicant must have a record of successful research esteem and publications.

4. A letter of support from an established researcher in the field of Sports Biomechanics with a clear statement that he/she supports the application for the ISBS Hans Gros Emerging Researcher Award. The letter must accompany the [application form](#).
5. A 250-word abstract outlining the proposed presentation topic. The proposed presentation should address a topic suitable for the ISBS audience.
6. The applicant, if selected, must attend the closing banquet for [ISBS2016 conference](#).

Review of Applications

Applications will be reviewed by the VP of Awards. Applications not adhering to the award criteria will not be judged. Applications adhering to the award criteria will be forwarded to the Awards Committee (AC). The applications will be judged based on the submitted application only and will be reviewed using the following criteria:

- scientific merit of the paper,
- suitability of the paper topic for the ISBS conference,
- paper topic is within the applicant's area of expertise, as evidenced by their research record,
- record of academic publications and contributions at conferences,
- evidence of developing and leading innovative research projects,
- evidence of impact of research,
- evidence of awards and grants to support research, and
- evidence of esteem indicators.

The decision of the AC is final in all cases and no correspondence will be entered into.

The successful applicant will be asked to submit a conference paper adhering to the ISBS conference paper format. Guidelines can be found at [www.isbs.org/awards](#)

Award Prize

The Hans Gros Emerging Researcher Award includes a certificate, monetary award of €1000 and complimentary registration for the [ISBS2016 conference](#).

How to Apply

The applicant must submit the [application form](#) (also available from [www.isbs.org/awards](#) or n.smith@chi.ac.uk), 250-word abstract, and supporting documentation to the VP of Awards by Saturday 31st of January, 2016.

Call for ISBS Awards 2016

New Investigator Award

The purpose of the New Investigator Award (NIA) is to recognize new researchers in Sports Biomechanics and to encourage them to become productive members of ISBS by expanding the base of knowledge of Sports Biomechanics through study and dissemination of information. The NIA was first awarded in Prague, Czechoslovakia as part of the 8th Symposium of ISBS. Since its inception, it has been contested on an annual basis as part of the annual conference.

Award Criteria is available on the [awards page](#) of the ISBS website

The entrance criteria for the New Investigator Award are as follows:

1. The applicant must be a member of ISBS at the time of the [ISBS2016 conference](#),
2. The applicant must provide documentary evidence that at the time of the [ISBS2016 conference](#) they are:
 - a) currently enrolled in an undergraduate (Honours) or postgraduate program, or
 - b) have graduated with their terminal degree (Master's or Doctoral) within the last two years,
3. The applicant must submit a paper for that year's annual conference,
4. The applicant must be the lead author of the submitted paper,
5. The applicant can only enter for one type of award (oral or poster).
6. The applicant, if selected as a finalist in the oral or poster competition, must attend the closing banquet of the [ISBS2016 conference](#).

Review of Applications

The NIA papers will be subject to the normal peer-review process for the [ISBS2016 conference](#) to determine appropriateness for inclusion in the conference scientific program. The conference chair will forward all NIA papers (final versions i.e. after revision) to the VP of Awards. Applications will be reviewed by the VP of Awards. Applications not adhering to the award criteria will not be judged. Applications adhering to the award criteria will be forwarded to the Awards Committee (AC).

The AC will review the NIA papers and shortlist the finalists' pre conference for the oral and poster competition categories. The finalists will usually be restricted to a maximum of 8 presentations in each category; however the AC may, in justified cases, advance additional papers to the finals.

New Investigator Award

The oral competition will be completed in two stages. There will be a preliminary round of presentations, grouped into two sessions, where all finalists will present. From that round, the best three presentations will be selected for a final round of competition where the award winners are decided. The poster competition is held during one poster session.

A sub-committee of the AC and the VP of Awards will undertake the 'at conference' judging for the poster competition and the first round of the oral competition. During those sessions the 'at conference' judging panel will rank the presentations, select the best 3 presentations for the oral competition and decide the award winners for the poster competition. A guest judging panel which may include, for example, executive members of the board and the conference chair will judge the second round of the oral competition and decide the award winners.

The decision of the AC and the 'at conference' and guest judging panels is final in all cases and no correspondence will be entered into.

Award Prize

The New Investigator Award includes a certificate and a monetary award of

Oral: 1st € 400; 2nd = €300; 3rd €200

Poster: 1st €300; 2nd = € 200; 3rd €100

How to Apply

The applicant must indicate that they would like to be considered for the NIA when they submit their conference paper to ISBS2016 (<http://www.isbs2016.org/>). The applicant must also send their supporting documents (evidence of current enrolment or graduation, evidence of ISBS membership) to the [VP of Awards](#) by Friday 5th February, 2016.

**Dr Neal Smith
Vice President (Awards)**

Report of ISBS Student Mentoring Program

Tim Exell

ISBS Vice President (Projects and Research)



In 2015, the 4th Student Mentor Programme was held at the ISBS conference in Poitiers. Organised by Dr Gerda Strutzenberger for the past three years, the programme has grown hugely in uptake since the first event in 2012 and was very widely attended this year. In Poitiers the programme involving 63 students representing 48 universities from 19 different countries who were mentored by 30 leading academics from around the world. As with previous ISBS mentor sessions, students had two opportunities to meet with their mentors during the conference. Having spoken to both mentors and mentees, this format offers a valuable opportunity for thinking and reflection in between the two mentor sessions to maximise the benefit of the experience. Students typically have the opportunity to discuss research, potential career paths and many other prominent topics in academic research, but the experience also provides students with opportunities to discuss their work with field-leading researchers at an international conference in a relaxed environment.



"I did not expect the approachability and friendliness of the world-leading academics, whose work I had read hundreds of times, demonstrated in the mentor programme."

Mentor-pair Paul Taylor and Drew Harrison deep in discussion. ISBS 2014

Alex Atack (St Marys University, UK) was part of the mentor programme for the second year running in Poitiers and had the following to say about her experiences:

As a research student, a large proportion of your time tends to be spent reading journal articles that are directly related to your area of study, employ similar methods or are simply of interest to you. The authors of the articles then become known names, included in literature reviews or discussed with other researchers. The International Society of Biomechanics in Sport annual conference provides an opportunity for everyone to hear from these researchers about their lifetime's work or their most recent study. Approaching these esteemed academics can, however, be intimidating for students who are only starting out on their research journey - the student mentor programme is designed to help exactly this process!



Report of ISBS Student Mentoring Program

Student Mentor Programme Facebook Group

[facebook](#) | join our group +

Click the icon above to join the Student Mentor Programme Facebook Group. Here you will find updates in future ISBS student activities as well as pictures and information on past events.

The 2014 conference in Johnson City was the first international conference I had attended and the first oral presentation I had delivered. I was excited to listen to the fantastic array of presentations on offer and to meet other researchers in Sports Biomechanics, but what I did not expect was the approachability and friendliness of the world-leading academics, whose work I had read hundreds of times, demonstrated in the mentor programme. I was mentored by Prof. Hiro Nunome, whose expertise in soccer kicking was relevant to my research in rugby place kicking. During the two organised meetings we were able to discuss the paper that I was presenting at the conference as well as the subsequent studies I had planned. This provided me with an opportunity to consolidate my thoughts, have my plans challenged, and consider alternative ideas. Furthermore, Prof. Nunome introduced me to other academics at the conference with expertise in areas that I was interested in working in, allowing me to access their knowledge and experience. Following this experience, I was really excited to return to the conference in 2015 and couldn't wait to participate in the mentor programme once again. A year on and my research project had progressed and I was starting to face the daunting prospect of completing my thesis, whilst also looking to the future. This year my mentor was Assoc. Prof. Jacqueline Alderson and with years of experience leading numerous research projects in Sports Biomechanics and supervising research students she provided me with an opportunity to summarise my work, introduced me to a novel method of analysis that she believed would enhance my work and advised me on the key tips to successful completion and pitfalls to avoid.

Having taken over as Vice President of Research and Projects from Gerda after the conference in Poitiers, I would like to thank her on behalf of all those involved in the student mentor programme for organising the events. I would also like to thank the mentors for giving their time and valuable experiences to the programme and the student mentees for engaging in the programme so enthusiastically. Details will be available in Spring 2016 for the student mentor programme at ISBS 2016 in Tsukuba.

Tim Exell
ISBS Vice President (Projects & Research)

SHORT COMMUNICATIONS

Call for future hosting of ISBS conferences

Gerda Strutzenberger ISBS Vice President (Conferences)

The call for the hosting of future ISBS conferences will be sent out in March 2015 newsletter, as per the Policy Manual for Conferences.

ISBS 2014 Proceedings

Sarah Clarke ISBS Vice President (Publications)

The proceedings of the 33rd conference on Biomechanics in Sports held in Poitiers, France from June 29 to July 3rd this year will be available online in the near future (<https://ojs.ub.uni-konstanz.de/cpa/>). An announcement will be made available on the [ISBS website](#), and social media when the 2015 proceedings are available. All abstracts are currently available on the [ISBS 2015 website](#).

ISBS Election 2015

Randall Jensen ISBS Secretary General

A total of 85 members voted in the 2015 ISBS Board of Directors (BoD) Election (25.9% participation). There were 5 email addresses for which the ballot link was rejected. The percentage of those voting was down slightly this year; this was likely due to a larger number of eligible members (new members who registered for the Annual Meeting were included), as the total voting was up slightly from last year's 82 voters.

From the 22 candidates standing for election, those elected as Directors were:

Kevin Ball , Helen Bayne , Liz Bradshaw, Tim Exell, Roman Farana, Laura-Anne Furlong, Bruce Mason, Justin Keogh, Kimi Sato, Neal Smith

Election of the Vice Presidents took place by the members of the BoD and results were as follows:

Vice President of Awards = Neal Smith

Vice President of Conferences and Meetings = Gerda Strutzenberger

Vice President of Publications = Sarah Clarke

Vice President of Public Relations = Wolfgang Potthast

Vice President of Research & Projects = Tim Exell

The BoD also appointed Silvio Lorenzetti to a four year term as Treasurer and Randall Jensen to a four year term as Secretary General.

SHORT COMMUNICATIONS

New ISBS Website

Silvio Lorenzetti ISBS Treasurer

In order to be able to pay the awards, grants and invoices, a temporary bank account was opened and all the open payments were covered. ISBS needs a new payment system. A team including Sarah Clarke, Gerda Strutzenberger, Neal Bezodis, Roman Frana, Randall Jensen, made an invitation for bid and evaluated four different solutions. As no final decision has been taken so far, we will inform later this year.

Job Opening

California State University, Chico



California State University, Chico

College of Communication and Education

Assistant Professor in Kinesiology

Biomechanics

For more information and to view the full job description,
please visit our website at:

[HTTP://JOBS.CSUCHICO.EDU/POSTINGS/3249](http://JOBS.CSUCHICO.EDU/POSTINGS/3249)

or contact

Kinestudent@csuchico.edu for any further questions

*CSU, Chico only employs individuals lawfully authorized to work in the US.
EOE/AA/ADA employer.*

Introducing Biomch-V: Biomechanics on YouTube

Daniel Bassett



The biomechanics community thrives on collaboration. Brilliant research inspires other researchers, and anyone who has attended ISBS conferences in the past knows the glow of enthusiasm and motivation that attendees take back to their labs with them after the conference is done. Absorbing a week's worth of new information can prove difficult though. Key points from a lecture can slip from our memories the moment the next talk begins. In addition, those who were unable to attend a session may forever lose out on the information being presented, and opportunities for growth in research might be missed.



ISBS 2015 applied session
“From Measurement to Modelling in Sport Collisions”

To view the videos from ISBS 2015 in Poitiers as well as others, just search YouTube for “Biomch-V” or go directly to <https://www.youtube.com/user/biomchv>.

Biomch-V is a YouTube channel created to fill in those gaps. Subscribers to this free resource can view keynotes from this summer’s biomechanics conferences as well as tutorials, lectures, and many other upcoming videos. The Biomch-V channel is relatively new but is gaining recognition as a site where the biomechanics community can catch up on key talks that might have been missed or forgotten.

In 2011, I founded BassettBiomechanics.com after noticing a related need. I had been doing lab setup and training and had seen that many groups struggled to keep up with new systems and software. This realization inspired me to offer a series of online courses to help labs get the most out of the equipment they own without the expense or inconvenience of hiring in-person trainers.

In the years since launching these courses, I’ve been thrilled to see our practical training making a difference for many labs. Training isn’t enough in itself though. Scientists need a consistent way to network, catch up, and benefit from each other’s research.

Biomch-V is my answer to keeping the conference spirit alive over the rest of the year. Both ISB and ISBS have been supportive of the project, and our sincere hope is to continue benefiting the entire biomechanics community by promoting great research and inspiring more!

To view the videos from ISBS 2015 in Poitiers as well as others, just search YouTube for “Biomch-V” or go directly to <https://www.youtube.com/user/biomchv>. Make sure to subscribe to the channel in order to be notified of new content each week. Also, feel free to contact me at info@bassettbiomechanics.com if you would like to contribute in any way to Biomch-V. By watching the videos, commenting, and submitting videos of your own, you’ll be helping to boost further collaboration and creativity in our field. Hope to see you there!

Introducing Biomch-V: Biomechanics on YouTube



Opening Ceremony Highlights



Jacques Duchateau

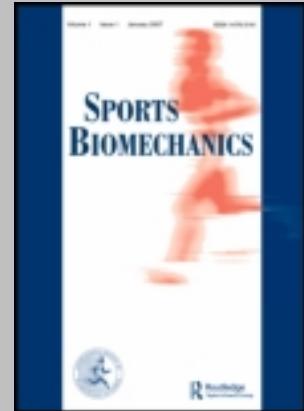


Franck Multon

ISBS Sponsors

Prof. Wolfgang Potthast
ISBS Vice President (Public Relations)

The society would like to thank the corporate sponsors of ISBS: Sensix, Contemplas, Simi and Kistler. For many years these sponsors have provided valuable and sustainable support for the society, for scientific research generally and sports biomechanics in particular. They provide cutting edge technology for sports biomechanics research and also support to athletes and coaches directly.



Sports Biomechanics Journal

Sports Biomechanics is the official scientific journal of the International Society of Biomechanics in Sports.

Impact Factor:

ISI Impact Factor 2013:
1.154 (53/81 in Sports Science)

Editor-in-Chief:

Daniel Fong

Associate Editors:

Jacqueline Alderson

Elizabeth Bradshaw

Daniel Herman

Gerwyn Hughes

Hiroyuki Nunome

Veni Pui-Wah Kong

[Journal website](#)

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Twitter Page:

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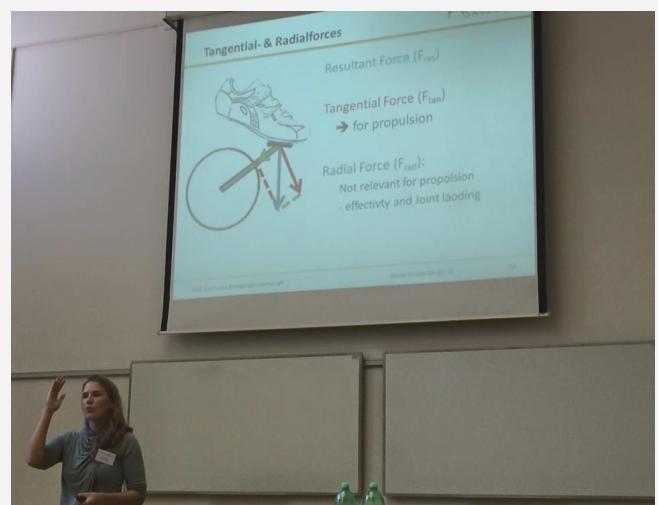
C-Motion Group Meeting

Roman Farana

ISBS Board of Director (2015-17)



The C-Motion User Group Meeting was held at the University of Ostrava, Czech Republic from September 21st -22nd. It was our great pleasure to host this seminar for the first time outside of UK and North America. The seminar program started on Monday 21st of September with a training workshop led by Dr. Scott Selbie from C-Motion Company, founder of Visual 3D software. Dr. Selbie covered the very interesting topics of POSE ESTIMATION, ADVANCED PIPELINING and NORMATIVE DATABASE.



The Tuesday program was opened by welcome messages from Dr. Daniel Jandacka, Vice-Rector for International Affairs, University of Ostrava and Dr. Roman Farana, Director of Human Motion Diagnostic Center, University of Ostrava. The Tuesday morning program involved two fabulous keynote presentations. Dr Gerda Strutzenberger from the University Salzburg, Department of Sport Science and Kinesiology presented her research focused on PEDAL-FORCES IN CYCLING: IMPLEMENTATION OF MEASUREMENT SYSTEMS IN THE V3D ANALYSIS ROUTINE AND ITS APPLICATION BASED ON AN EXAMPLE INVESTIGATING EFFECTS OF OVAL CHAINRINGS. Dr. David Zahradník from University of Ostrava, Department of Human Movement Studies provided a presentation of a very interesting topic of PREVENTION OF ANTERIOR CRUCIATE LIGAMENT INJURY IN VOLLEYBALL. Both keynote presentations were well attended with a lot of questions from delegates. The afternoon program began with Dr. Scott Selbie who presented the latest innovations offered by Visual 3D. Dr. Roman Farana presented a lab tour of the Human Motion Diagnostic Centre and Dr. Daniel Jandacka presented the main ongoing research project in biomechanics. The seminar was closed by Richard Milton, Director of Operations, C-Motion Company.

On behalf the organisation committee it was our great pleasure to host this C-Motion Meeting at our department.

ISBS Officers & Directors

ISBS Officers

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Vice President (Publications):



Sarah Clarke
Leeds Beckett University, UK

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2015-2017



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STUDENT REP



Madoka Kinoshita
University of Tsukuba,
Japan

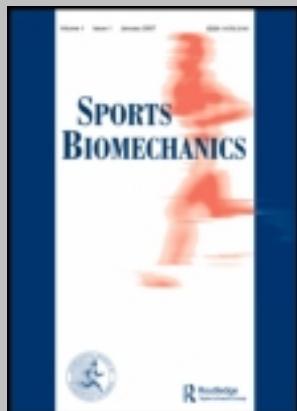


Cassie Wilson
University of Bath,
UK

www.isbs.org



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The 33rd Conference of the International Society of Biomechanics in Sports took place at the Faculty of Law, on the main campus of the University of Poitiers, Poitiers France.

Please view the video above to see the
“Best of ISBS 2015”



WEBSITE:

<http://www.isbs2016.org/>