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Newsletter

Volume: 23 - Number: 2, December 2010

From the President

Jill McNitt-Gray

I'd like to take this opportunity to personally invite you to **participate in ASB!** Consider the following ways you can contribute:

Host a meeting at the national or regional level. Attendance at our annual meeting has continued to climb to ~600 and we have found ourselves needing to move to a convention center model for meetings. Thanks to our ASB Meeting Chairs at Brown University, ASB has a step-by-step "How to Host" template for future meeting chairs incorporating a convention center venue. The convention center model has been beneficial for highlighting excellent research in our poster sessions and the latest tools of the trade from our valuable vendors. As the scale of the meeting increases, there may be other opportunities for exchange on a smaller scale (e.g., discussions on standards of practice, cross disciplinary teaching of biomechanics, and public policy, etc.) that can be integrated as part of the annual meeting. Please share your ideas with Education Committee Chair [Gerald Smith](#), or consider hosting an event in your area.

Become a member of an ASB Committee. Participation on ASB committees serves as our primary means of fostering leadership within ASB. Let us know if you are interested in sharing your skills and taking part in the process.

Mentor the next generation of biomechanists. The ASB student representative coordinates multiple opportunities for our members to interact with student members. Students, if you have ideas for mentoring, professional opportunities, or career planning tools please contact [student representative](#), Meghan Vidt.

Take part in web-based communications! ASB is exploring various delivery vehicles for discussing current issues in biomechanics, including the internet, e-newsletter, and multimedia conferencing. Our Brazilian colleagues recently transmitted a biomechanics symposium worldwide using Twitter! Ahmet Erdimer has been actively collaborating with the Interagency Modeling and Analysis Group (IMAG) and the Multiscale Modeling Consortium to establish reporting recommendations for finite element analyses of biological structures. We are open to ideas on how to further discuss this [working document](#) within ASB and with other societies.

Foster advocacy and support for biomechanics related research, education, and public policy. Be on the look out regarding the findings from the *Biomechanics in Movement Science: Building Transdomain Bridges* conference chaired by Steven Stanhope and ASB past president, Irene Davis.

Looking forward to working with you.

Student's Corner

Meghan Vidt

At the Providence meeting, Becky Fellin officially ended her term as Student Representative and I began mine. I would like to thank Becky for all of her hard work with ASB. She has done an excellent job of promoting and improving student participation in the society. I have some very large shoes to fill!

The 34th Annual ASB meeting in Providence was a great success, with 194 student members in attendance. An array of student activities were offered at this year's meeting and these events were well attended. Over 60 women participated in the Women in Science breakfast and the Diversity luncheon was again held (see the [Diversity Group](#) report). The student round-table mentoring session was attended by 40 students. Additionally, 29 students participated in the one-on-one student mentoring program. Thank you to all students and members who came out to these events!

Now that the academic year is in full swing, an important date for students to remember is January 15, 2011, which is the Grant-in-Aid application deadline. With the Grant-in-aid program, research funding is awarded to students for supplies, animal or subject costs, or small equipment. These funds cannot, however, be used for travel or salaries. Eligibility for this award requires that you be an ASB student member and submit your application by the deadline. This year, ASB hopes to award 3-5 one-year grants of \$2,000 each. More information can be found on the [ASB website](#).

We are quickly coming up on the spring semester and it is never too early to start thinking about topics for your ASB abstract! An important date to mark on your calendars is March 9, 2011. This is the deadline to submit an abstract for the annual meeting, which will be held from August 10-13, 2011 in Long Beach, CA. There will be ample opportunity for student involvement outside of the oral and poster presentations. This meeting will feature many of the student events from the 2010 meeting, although the format may be different.

This spring, watch for announcements regarding upcoming ASB regional meetings. In 2011, regional meetings include the Northwest Biomechanics Symposium in Vancouver, BC, the Rocky Mountain ASB Meeting in Estes Park, CO, the South Central ASB Meeting in Dallas, TX and the Southeast Regional ASB Meeting in Chapel Hill, NC. These meetings are small and provide a great way for students to present their work and receive constructive feedback. Please consider attending a regional meeting near you.

Don't forget about ASB's Video of the Month. This initiative started this past summer and has been a great success. The videos are a fun way to keep current with research activities in the field of biomechanics, as well as share what your lab is up to. You can find more information under the Video of the Month link on the ASB website. Time to get the cameras rolling!

I am working with the executive board to establish a new student committee, which will allow more students to become involved in ASB. Look for an e-mail from me soon requesting participation. As the Student Representative, I am always open to suggestions and ideas from the student members of ASB. Please don't hesitate to [contact me](#). Enjoy the holiday season and best of luck with classes and research!

Page 2



Editorial Board

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Advertising in the Newsletter

The Editorial Board invites various businesses that have products or services of interest to members of the Society to advertise in the ASB Newsletter. Advertising space may also be purchased for job postings or other special announcements.

The current advertising rates are as follows:

1/4 page--\$100

1/2 page--\$200

full page--\$400

back page--\$600

If you are interested in learning more about advertising in the ASB newsletter, please e-mail William Ledoux:

wrlledoux@u.washington.edu

ASB Newsletter



ASB Involvement

If you are interested in becoming more active in the Society (e.g., serving on a committee or chairing a conference session), contact [Michael Madigan](#), Secretary/Membership Committee Chair, with your name, address, phone/fax number, email address, and your desired involvement. This information will be included in a database which is periodically updated and distributed to the Executive Board.

Back Copies of the Newsletter

All previous ASB newsletters have been converted into pdf documents and are archived on the [ASB website](#).



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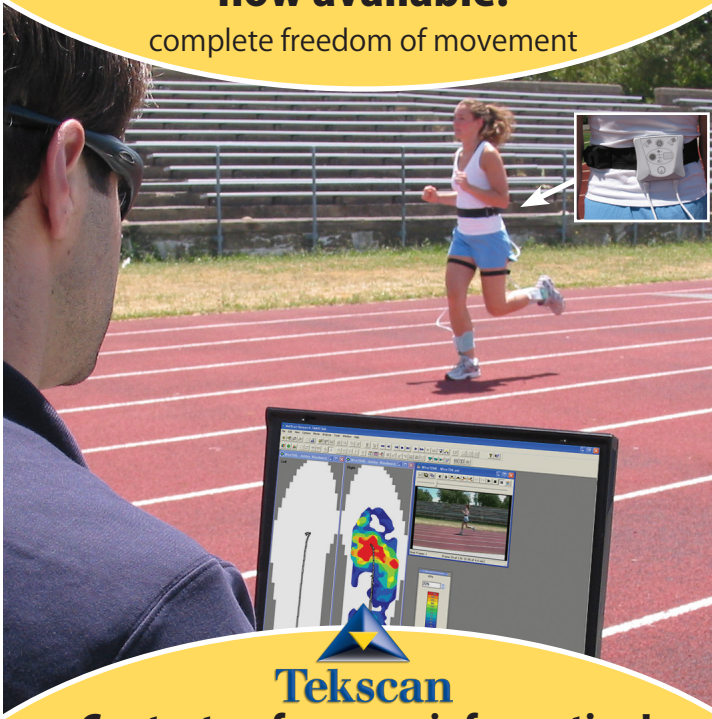



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Education Committee

Gerald Smith

Echoes from the ASB conference in Providence continue to reverberate in the memories of those who enjoyed the hospitality and excellent programming experienced in late August. Tutorial sessions and lab tours were well attended pre-conference activities:

"Grant Writing for the NIH: New Guidelines, Old Tricks" was presented by ASB president Thomas Buchanan and Education chair Nick Stergiou. If you missed the session or wish to review details, slides from the presentation are available on the ASB website from the [conference archive](#) page.

"X-ray Reconstruction of Moving Morphology (XROMM): Hardware, Software, and Validation Procedures for Model-Based X-ray Motion Analysis" was presented by Beth Brainerd from nearby Brown University. If you missed this session and the associated lab tour, explore the [website](#) where details on methodology and fantastic video examples are available.

Thanks to 2010 tutorial presenters for their contributions to the conference. The ASB Education Committee plans the annual conference tutorials each year. We rely on feedback and suggestions from the membership to find the most useful topics and stimulating speakers available. Please forward your ideas as soon as possible so that the education and program committees have input and opportunity to organize tutorials of benefit for students and professional members at the next conference in August 2011.

In addition to ASB's annual meeting each summer, during the academic year ASB supports regional meetings which are student centered opportunities to learn presentation skills, to interact with career biomechanists, and to establish connections for potential collaborations. The ASB executive board recently completed review of applications for support for this year. We are pleased to announce the regional meetings of Spring 2011 with their tentative dates:

February 24-26, 2011:

South Central ASB Meeting
Texas Scottish Rite Hospital for Children, Dallas, Texas

February 25, 2011:

Human Movement Science Research Symposium
The University of North Carolina at Chapel Hill

April 8-9, 2011:

Rocky Mountain ASB Regional Meeting
Estes Park, Colorado

June 3-4, 2011:

Northwest Biomechanics Symposium
University of British Columbia, Vancouver, Canada

The regional meetings of past years have provided wonderful opportunities for student researchers to receive full attention, constructive feedback, along with



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fun socializing. We encourage all biomechanics students and their advisors to schedule attendance at one of these gatherings. With ASB support, the regional meeting costs are minimized for students without short changing content or quality. Attend one and you'll want to return every year!

Science, Technology, Engineering and Mathematics (STEM) Education and ASB

It has been five years since the National Academy of Sciences released the report *"Rising Above the Gathering Storm"* which documented the state of STEM education in the US. In the intervening years, academic performance and recruitment into STEM careers has continued to slide lower on many comparison scales of international education. The follow-up report released in May 2010 is now available on the [National Academies Press website](http://www.nationalacademies.org). Titled *"Rising Above the Gathering Storm, Revisited"*, this most recent report states about the public school system that there has been ". . . little sign of improvement, particularly in mathematics and science."

On some fronts, considerable effort has been devoted to improving STEM education. The National Science Foundation funds several programs specifically aimed at improving various aspects of K-12 and undergraduate education. Many universities have developed initiatives aimed at strengthening STEM recruitment and teacher preparation. Other efforts such as the [National Lab Day](#) in May and the [USA Science & Engineering Festival](#) in October have been organized to engage young students in science activities and help prepare and recruit them to STEM careers.

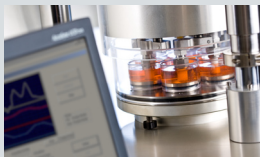
ASB leadership has been discussing the role of the society in such efforts. Many individual members may be involved in local efforts to strengthen science education, but we have not had any larger scale, society wide, effort to contribute to solving the problems of STEM education in the US. We are agreed that as scientists we have some responsibility to strengthen science education and as biomechanists with very interdisciplinary perspectives on science we can contribute in unusual and important ways. We are searching for the best strategy for the society to contribute. Over the next years you will see some ASB experiments in this direction. Send us feedback and suggestions from your perspective on how ASB can best contribute to solving the local and national problems of STEM education.



Abstract Reviewers Needed for ASB 2011

To volunteer, please send your name and area of expertise to:
2011ASBReviewers@gmail.com
You will need to review ~20-30 abstracts between mid-April and mid-May 2011.

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AMERICAN SOCIETY OF BIOMECHANICS

35th Annual Meeting of the American Society of Biomechanics

August 10 - 13, 2011
Long Beach, California

THE UNIVERSITY OF MICHIGAN
Department of Industrial and Operations Engineering
Faculty Positions

The Department of Industrial and Operations Engineering at the University of Michigan invites applications and nominations for faculty positions beginning September, 2011.

We seek outstanding candidates for faculty positions in the areas of Quality Engineering, Human Factors and Ergonomics, at the assistant/associate professor level and Optimization at all levels. Applicants in research areas such as production systems, supply chain management, cognitive engineering, perceptual and cognitive systems modeling, applied probability, decision analysis, health care delivery systems, or financial engineering are encouraged to apply.

Candidates must have a Ph.D. and must demonstrate a strong commitment to high-quality research and evidence of teaching potential. Experience related to manufacturing and/or service operations is desirable. Candidates for Associate or Full Professor should have a commensurate record of research publications and are expected to provide organizational and research leadership, develop sources of external funding, build relationships with industry, and interact substantively with faculty colleagues.

Candidates should provide (i) a current C.V., (ii) a list of references, and one page summary statements describing: (iii) career teaching plans; and (iv) research plans. The application review process will begin on November 15, 2010, but the positions will remain open and applications will continue to be reviewed until appointments are made.

We seek candidates who will provide inspiration and leadership in research and actively contribute to teaching. We are especially interested in candidates who can contribute, through their research, teaching and/or service, to the diversity and excellence of the academic community. The University of Michigan is responsive to the needs of dual career families.

Send inquiries and responses to:

Email: IOEFacultySearch@umich.edu

or mail to:

Faculty Search Committee c/o Gwendolyn J. Brown
Department of Industrial and Operations Engineering
University of Michigan
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Secretary/Membership Chair

Michael Madigan

What a great meeting we had in Providence! The venue was outstanding, the science was impressive, and the all-you-can-eat lobster on the water raised the bar for all subsequent meetings. A big thanks to all of the organizers.

In my last column, I reported that our membership numbers were down sharply from the end of 2009. I'm happy to report that my threat of asking Paul DeVita to wear his ECU pirate costume at the Annual Meeting motivated many of you to renew your membership. We currently have 372 regular members and 203 student members. The number of regular members is still down from 467 a year ago, but the number of student members has just about equaled the 209 we had last year. The Membership Committee (Angela DiDomenico, John DeWitt, and Erika Nelson-Wong) has been trying to contact non-members who attended the annual meeting to see if there is anything we can do to coax them into renewing their membership or becoming new members.

I'm also happy to report that the membership approved the addition of a Fellow status within ASB. The purpose of Fellow status is 1) to recognize professional achievement and service of the top members of the Society, and 2) to encourage continued service to the Society in a leadership role. We plan to invite all past-presidents of ASB to become Fellows to "prime the pump". New Fellows will need to be nominated by a current Fellow. More information will be posted on the ASB webpage soon.

Later this year, we will have another election for the President-Elect and 2013 Program Chair. Thanks to Richard Hughes and Dan Ferris for volunteering to serve on the nominating committee. We are all used to the standard Republican and Democrat nominees. It will be interesting to see if they attempt to "send a message" to the current ASB Executive Board that the status quo isn't good enough by also electing a Tea Party candidate. I'm expecting around the clock CNN coverage in the weeks leading up to our election. And you thought national politics was compelling!

Are you interested in learning more about the National Institutes of Health grant process, or serving the scientific community by reviewing NIH grants? The Office of Extramural Research at NIH has an Enhancing Peer Review initiative to improve the grant review process. They are encouraging investigators who receive research grant support from the NIH to participate in peer review. If you are interested in learning more please go [here](#) for more information.

I'd like to leave you with quote from Albert Einstein. Most of us really enjoy our research and gain tremendous satisfaction in answering wide-ranging biomechanics questions. However, research can also be very challenging and frustrating when things don't work out how we would expect, especially for simple thinkers like myself. I gain comfort in the fact that someone as smart as Einstein had similar struggles. Happy Holidays!

"If we knew what it was we were doing, it would not be called research, would it?"

Albert Einstein



ASB Executive Board 2010-11

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ASB Commercial Members 2010

Commercial membership categories are aimed at encouraging affiliation by commercial organizations that market products which are used by the biomechanics research community, or companies that are otherwise engaged in activities that fall within the Society's general interest areas. Companies wishing to become a Commercial Member are encouraged to contact [Gary Heise](#), Treasurer.

The ASB Executive Board is pleased to recognize the following:

Tekscan, Inc.
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Northern Digital, Inc.

Treasurer

Gary Heise

Elected officials make loads of promises, but then, after they flirt with power in their elected office, those promises are long forgotten. Our last distinguished ASB Treasurer, Paul DeVita, made such promises early in his term. As his successor, I will hold Paul to one promise he made in his first ASB Treasurer Newsletter column in 2007. He thanked his predecessor, Don Anderson, for all the help during the transition and promised to offer similar support in the future. I paraphrase Paul's words because they are appropriate for his send-off after his admirable service to the ASB and because his words describe, in a scientist-like fashion, his approach to the first few months on the job, which is now my approach: "my modus operandi on each of your requests and questions these coming months will be: 1) become confused, 2) ask (Paul) how to solve the problem, 3) solve the problem." Paul then promised to donate his time and energy to ASB "well beyond the norm" (*DeVita, P., ASB Dec 2007 Newsletter, p. 8*). You see, he promised – well beyond the norm. Paul, there is no "probably;" I'm afraid you WILL contribute beyond the norm.

Paul captained the ASB Treasury through hurricane-like financial waters, kept our journal subscription rates reasonably priced, and diligently reminded us to renew our memberships (by the way, if you haven't done so, renew your membership NOW). My goal is simple – be like Paul, Don, Rob Shapiro, Joan Bechtold, Mark Grabiner, Melissa Gross, et al. I hope to operate by the standards set by these respected colleagues who held this post. Feel free to offer your suggestions, comments, and of course money to the ASB Treasury. When you see Paul in Long Beach this summer, please thank him for his outstanding service to the society. And if he starts talking about an extended vacation to an exotic, tropical location, please let me know.



President-Elect

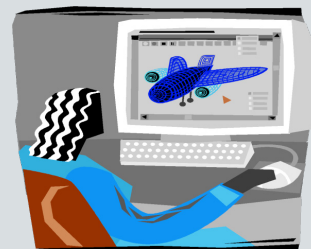
Don Anderson

Are you like me, in that every so often one of your clinical collaborators will bring you a recently published scientific article with some form of computational modeling in it, and they have no idea what to make of it? Even allowing for challenges in understanding the basic assumptions and implementation, they just don't know whether or not to take the findings of the study to heart, as in to consider changing the way in which they treat patients based upon the findings. I suspect that this is in part a failing on our part as scientists, for not having a way to label computational or experimental models appropriately so that readers know how to interpret the research findings.

In the world of clinical medicine, there has been a recent movement toward practicing evidence-based medicine. Certain journals require authors to label their clinical studies in terms of the "level of evidence" represented in the answering of their primary research question. For instance, the American Journal of Bone and Joint Surgery uses a [five-point scale](#) for labeling the evidence of a study. To grossly paraphrase their system, studies range in evidence from level I (carefully controlled and well executed studies finding a strong result) to level V (expert opinion). The level of evidence doesn't necessarily impede the publishing of a work, but it aims to characterize the work in a way that is easily interpretable by the intended clinical audience.

As your president-elect, I have taken on the responsibility of pulling together and publishing a position paper on behalf of the ASB. It is my task to coordinate the development of the paper in a topic area of my choosing, and to solicit a panel of our members who will help to write the position statement. The topic that I have chosen (as you may have guessed by now) is the challenge of proposing a way in which modeling papers can be identified according to their level of evidence. Part of this obligation is in developing a schema which factors in assessment of model sophistication, appropriateness of modeling assumptions, level of maturity, degree of validation, reasonable scope of interpretation, and strength of findings.

I am just getting started on this task, so my thoughts are just starting to coalesce. I welcome input from any of you regarding this topic. Just drop me an [e-mail](#), and enter into the dialogue.



Provide feedback regarding the ASB Position Paper on Levels of Evidence in Modeling to Don Anderson





Please send comments on the proposed Code of Conduct to [Jill McNitt-Gray](#) by March 1, 2011

Proposed ASB Code of Conduct

Jill McNitt-Gray

In accordance with the ASB Strategic Plan for 2012, the ASB Executive Board created a task force for establishing an ethical Code of Conduct for ASB Members. The task force was comprised of a representative from each of the subdisciplines within the ASB membership. The broader ASB membership was invited to participate and provide suggestions and comments via the December 2009 ASB newsletter. After further discussion and review by the ASB Executive Board, the following represents the final draft of this document to be posted on the ASB website. Please forward your comments and suggestions regarding this final draft of the proposed Code of Conduct for ASB Members to [me](#) prior to March 1, 2011. Thanks for taking part in the process.

DRAFT: Feb 3, 2010

Membership in professional societies, including the American Society of Biomechanics, has implied expectations for ethical behavior in research, teaching, and service to all segments of society.

As a member of the American Society of Biomechanics, I shall:

- honor and respect the field of biomechanics by conducting myself responsibly, ethically, and lawfully.
- hold paramount the safety, health, and welfare of the public.
- provide truthful, accurate, relevant and evidence-based information based upon my competence in the subject matter and knowledge of the facts and will disseminate without deception.
- abide by the basic principles of respect of persons, beneficence and justice and comply with regulations in accordance with my institutional review board.
- endeavor to increase the knowledge in my discipline and within reasonable limits of time and finance, shall make available that knowledge, skill and training to the public for the benefit of all.
- disclose any conflicts of interest and will review the professional work of others fairly and in confidence.
- recognize the contributions of others and will not associate or allow the use of their name on enterprise known to be illegal, fraudulent or of questionable character.
- participate in activities contributing to the improvement of the biomechanics community.

Communications Chair

Zong-Ming Li

ASB recently launched "Videos of the Month." The purpose of the video initiative is to share internet biomechanics videos among biomechanists and others interested in biomechanics. Each month, up to four video links are selected from the nominated videos. The videos can be accessed at the [Google site](#) or through the [ASB website](#).

Since the launch in June, we have had >3300 hits for the following videos:

- Jumping with weights
- Discus mechanics
- It is World Cup time -- soccer goals by Magnus Effect
- This is why we stay in school
- No nose is good news
- Generative braking
- Some of the numerous benefits of biomechanical engineering
- Biomechanics of animal motion
- Knee motion during a landing task
- Are kids dangerous?

We greatly appreciate those who submitted video nominations and thank you for watching the videos and giving feedback. Please submit your nominations to matt_seeley@byu.edu and liz4@ccf.org with following information: (1) title of the video, (2) length of the video, and (3) Web link, and (4) your name and affiliation.

Diversity Group

Meghan Vidt

This year marks the second offering of the Diversity Luncheon. At this year's meeting, there were over 30 in attendance. This was an informal setting, designed to facilitate the discussion between students and professional members about issues unique to minorities and diversity. At the next Annual Meeting in Long Beach, the Diversity committee will again hold a similar event. We hope that you will make plans to join us, as attendance from both minorities and non-minorities is encouraged. Any suggestions or ideas for improving diversity in ASB can be directed to [Meghan](#).

Diversity Committee:

Alaa Ahmed

Tameka Clanton

Francisco Valero-Cuevas

Al Douex

Brandon Govindarajoo

Matt McCullough

Sai Vikas Valla

Meghan Vidt





More info on how to apply for an ASB Research Travel Grant is available on the [ASB website](#).

ASB Research Travel Grants

Becky Zifchock

In July, 2010 I flew to visit Erin Hartigan at the University of New England in Portland, Maine, with the support of the American Society of Biomechanics Travel Award. This visit was designed as the culmination of one collaborative project and the beginning of what we hope to be several future collaborative projects. Erin researches treatment after ACL rupture and reconstruction. My research has primarily focused on running injury prevention, and I am interested in expanding my research efforts toward ACL prevention and treatment as it relates to kinetics, kinematics, strength, and structure.

We began our collaborative efforts approximately six months ago, when Erin asked me to help her to design anatomic models in Visual3D. Since then, we have met sporadically at conferences and via telephone to establish our methods. The financial support of the American Society of Biomechanics allowed us to meet face-to-face for an extended period of time to finalize the current version of the code. We also identified our first collaborative research question: validating her current methods for measuring mid-foot motion during walking, running, pivoting, and jumping. We used the face-to-face opportunity to design a study, and wrote up an application for her Institutional Review Board.

Erin and I appreciate the support of the American Society of Biomechanics in fostering our collaborative effort. We look forward to presenting some of this work at future ASB meetings!

Fan Gao

In the summer of 2010, I was able to travel from Dallas, TX to Kinston, RI to visit the Neuromuscular Rehabilitation Engineering Laboratory (NREL) directed by Dr. Helen Huang at the University of Rhode Island with financial support of the ASB Travel Grant. NREL is equipped with advanced instruments such as a treadmill with embedded force plate, inertia based motion analysis system, and multiple-channel EMG system. Dr. Huang's major research interests include neural control of prostheses and development of intelligent and adaptive control system for therapeutic robots and prostheses. Ongoing research projects at NREL include design of neural-machine interface.

I am a junior faculty in the Prosthetics and Orthotics program at UT Southwestern Medical Center at Dallas. During the visit, I was able to interact with the research staff and experience a lab test with an amputee. Thanks to the support of ASB, I was able to discuss potential collaboration in the field of prosthetics in detail with Dr. Huang. I even got the chance to look at some pilot data on residual limb EMG and kinematics which will be very helpful for future proposal development. Both Dr. Huang and I are excited about potential collaboration opportunities. Currently, we are putting some ideas together and planning to submit proposals in the near future. Today most research projects are interdisciplinary and collaboration is essential in career development for junior researchers. I am so honored to be awarded this grant and would strongly suggest that other junior researchers take advantage of this opportunity provided by the ASB.

A View From the Blue

Michelle Sabick

The holiday season is here and, as usual, I am struggling to balance work, family, leisure, and more work. The difference this year is that I am watching how my three year-old responds to the chaos. Now she fully comprehends that the holidays are coming and she is awaiting them with much anticipation. This is a great thing for me, as it turns out that Santa is a useful disciplinary tool!

My husband and I have been looking for creative ways to make sure that the holidays remain grounded in the values that we would like to instill--such as sharing our good fortune, caring for others, and spending time with friends and family--rather than in the materialism that our culture instills. Besides looking for activities that are more about giving than getting, I am hoping to spend some time with her creating gifts for our family and friends that are unique and heartfelt. I remember the joy and pride that I felt when someone opened a gift that I had made for them, and I remember how magical everything felt around the holidays. I also remember how much of that holiday magic disappeared once I was old enough to understand that there really was no fat man living at the North Pole and that I had been misled by a multitude of people I trusted.

Watching the holidays approach through my daughter's eyes has helped restore some of the magic for me, and I hope that will continue for another few years. After all, I'll take all the disciplinary help from Santa that I can get! Best wishes for a happy and safe holiday season!



Holiday Quotes

Christmas gift suggestions: To your enemy, forgiveness. To an opponent, tolerance. To a friend, your heart. To a customer, service. To all, charity. To every child, a good example. To yourself, respect.
Oren Arnold

As we struggle with shopping lists and invitations, compounded by December's bad weather, it is good to be reminded that there are people in our lives who are worth this aggravation, and people to whom we are worth the same.
Donald E. Westlake

CALL FOR ABSTRACTS

Annual Meeting of the American Society of Biomechanics
August 10-13, 2011

The 2011 Meeting of the American Society of Biomechanics will be hosted by the University of Southern California and held August 10-13 in Long Beach, CA. The organizers of ASB encourage the submission of abstracts on the full spectrum of biomechanics topics, including aging, biofluidics, comparative biomechanics, cellular and tissue mechanics, computational biomechanics, ergonomics, imaging, injury prevention, instrumentation, locomotion, molecular motors, motor control, neuromechanics, orthopedics, prosthetics, rehabilitation, robotics, sports, tissue engineering, and vehicle occupant safety. Both modeling and experimental work is encouraged at scales ranging from molecular to whole body.

The program will include concurrent podium sessions, poster sessions, tutorials, symposia, keynote lectures, best paper competitions (Clinical Biomechanics, Journal of Biomechanics), and honorary awards (Borelli, Hay, Young Scientist Pre-Doctoral, Young Scientist Post-Doctoral).

The abstract submission website will open on February 9, 2011 and abstracts will be accepted until 5:00 PM EST on March 9, 2011.

Meeting information is available through the [ASB website](#), including links for abstract submission, meeting registration, and details on the eligibility and nominating requirements for each of the awards.



Events Calendar

William Ledoux

NOTE:

For a more comprehensive international listing, please visit ISB's [website](#)

Computational Methods in Orthopaedic Biomechanics

January 12, 2011, Long Beach, California
Abstract deadline - past
www.pre-ors.org

Orthopaedic Research Society

January 13 - 16, 2011, Long Beach, California
Abstract deadline - past
www.ors.org

American Academy of Orthotists and Prosthetists

March 16 - 19, 2011, Orlando, Florida
Abstract deadline - past
www.oandp.org/meeting2011

Gait and Clinical Movement Analysis Society

April 26 - 29, 2011, Bethesda, Maryland
Abstract deadline - December 3, 2010
www.amrms.com/ssl/gcmas/2011/

American College of Sports Medicine

May 31 - June 4, 2011, Denver, Colorado
Abstract deadline - past
www.acsmannualmeeting.org

International Symposium on Digital Human Modeling

June 14 - 16, 2011, Lyon, France
Abstract deadline - November 30, 2010
iea-dhm2011.univ-lyon1.fr/en

International Conference on Simulation Technology

June 14 - 17, 2011, Stuttgart, Germany
Abstract deadline - November 30, 2010
www.contoo.de/c/simtech2011/c_cult/en_GB

International Society for Posture and Gait Research

June 18 - 22, 2011, Akita, Japan
Abstract deadline - December 20, 2010
www.ispgr.org/conferences/japan-2011/conference-overview/index.html

American Society of Mechanical Engineers Summer Bioengineering Conference

June 22 - 25, 2011, Farmington, Pennsylvania
Abstract deadline - January 15, 2011
www.asmeconferences.org/SBC2011/index.cfm

International Society of Biomechanics

July 3 - 7, 2011, Brussels, Belgium
Abstract deadline - January 20, 2011
www.isb2011.org

European College of Sport Science

July 6 - 9, 2011, Liverpool, United Kingdom
Abstract deadline - December 15, 2011
www.ecss-congress.eu/2011

Progress in Motor Control

July 21 - 23, 2011, Cincinnati, Ohio
Abstract deadline - TBA
homepages.uc.edu/~rileym/PMC/index.html

American Society of Biomechanics

August 10 - 13, 2011, Long Beach, California
Abstract deadline - March 9, 2011
www.visitlongbeach.com/asb2011

IEEE Engineering in Medicine and Biology Society

August 30 - September 3, 2011, Boston, Massachusetts
Abstract deadline - March 26, 2011
embc2011.embs.org

International Research Council on Biomechanics of Injury

September 14 - 16, 2011, Krakow, Poland
Abstract deadline - December 2010
www.ircobi.org/conference.php

Human Factors and Ergonomics Society

September 19 - 23, 2011, Las Vegas, Nevada
Abstract deadline - TBA
www.hfes.org/web/HFESMeetings/upcoming.html

European Cell Mechanics Meeting

October 17 - 19, 2011, Amsterdam, Netherlands
Abstract deadline - TBA
www.amolf.nl/cellmech2011

European Society of Biomechanics

July 1 - 4, 2012, Lisbon, Portugal
Abstract deadline - TBA
www.esbiomech2012.org

International Foot and Ankle Biomechanics Community

September, 2012, Sydney, Australia
Abstract deadline - TBA
www.i-fab.org

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