

Theoretical and Computational Methods Working Group

Suvranu De and Vasilis Marmarelis

Activities in 2012-2013

- **International Workshop on Computational Mechanics of Materials**
 - Sept 24-26, 2012, Baltimore, MD
 - Organizers: Suvranu De
 - Computational Mechanics of Biomaterials
- **ASME 2013 2nd Global Congress on NanoEngineering for Medicine and Biology**
 - February 4-6, 2013, Boston, MA
 - **Track 5: Multiscale Modeling and Experiment in Biology and Medicine**
 - Organizers: Mark Bathe, Suvranu De, Yusheng Feng, Sinan Ketan, Grace Peng
 - One session on IMAG perspectives: Grace Peng, Jennifer Couch, Virginia Pasour, Susan Greurick
- **MSM Webinar**
 - June 24, 2013, Speaker: Wonmuk Hwang, Texas A&M
 - Topic: Mechanics of kinesin-based transport: from single molecule to multi-motor behavior, to cell division
- **CMBBE 2013 Conference**
 - April 3-7, 2013, Plenary talk on Virtual Surgery
- **Springer book project**
 - Title: Multiscale Modeling in Biomechanics and Mechanobiology
 - Co-editors: Suvranu De (RPI), Wonmuk Hwang (TAMU), Ellen Kuhl (Stanford)
 - Due date: mid 2014
 - Status: on track (20 chapters)

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Planned activities in 2013-2014

■ Springer book project

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■ IDEAS Workshop on Virtual Surgery

- Nov 23, 2013, Beth Israel Deaconess Medical Center, Boston, MA
- Organizers: Dan Jones (BIDMC), Suvranu De (RPI)
- Three groups: Clinicians, Technology, Federal agencies (Grace from NIH and Harvee from TATRC)

■ MSM Webinar

- Nov, 2013, Speaker: Ellen Kuhl, Stanford University
- April, 2014, Speaker: Ausotsh Agarwal, Univ of Houston

■ SAGES 2014 Annual Meeting

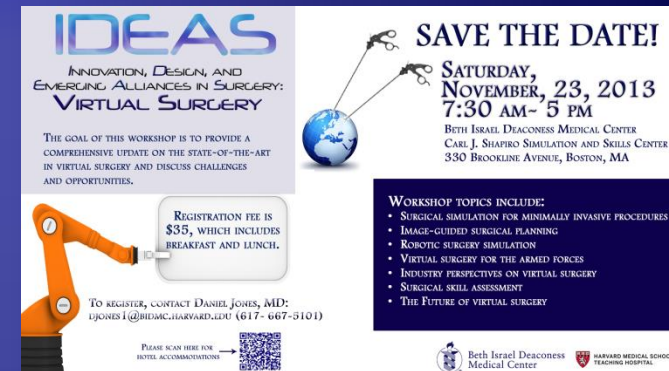
- April 2-5, 2014, Salt Lake City, Utah
- Course : Emerging Frontiers of Virtual Surgery (for CME credits)

■ Rensselaer Workshop on Multiscale and Multimodality Imaging and its Applications

- Feb, 2014; RPI

■ Biomedical Simulations Resource Workshop on “Model-based Diagnostic Physiomarkers”

- April, 2014; USC



IDEAS
INNOVATION, DESIGN, AND
EMERGING ALLIANCES IN SURGERY:
VIRTUAL SURGERY

THE GOAL OF THIS WORKSHOP IS TO PROVIDE A
COMPREHENSIVE UPDATE ON THE STATE-OF-THE-ART
IN VIRTUAL SURGERY AND DISCUSS CHALLENGES
AND OPPORTUNITIES.

REGISTRATION FEE IS
\$35, WHICH INCLUDES
BREAKFAST AND LUNCH.

TO REGISTER, CONTACT DANIEL JONES, MD:
d.jones1@bidmc.harvard.edu (617-667-5101)

PLEASE SCAN HERE FOR
HOTEL ACCOMMODATIONS

SAVE THE DATE!
SATURDAY,
NOVEMBER, 23, 2013
7:30 AM- 5 PM
BETH ISRAEL DEACONESS MEDICAL CENTER
CARL J. SHAPIRO SIMULATION AND SKILLS CENTER
330 BROOKLINE AVENUE, BOSTON, MA

WORKSHOP TOPICS INCLUDE:

- SURGICAL SIMULATION FOR MINIMALLY INVASIVE PROCEDURES
- IMAGE-GUIDED SURGICAL PLANNING
- ROBOTIC SURGERY SIMULATION
- VIRTUAL SURGERY FOR THE ARMED FORCES
- INDUSTRY PERSPECTIVES ON VIRTUAL SURGERY
- SURGICAL SKILL ASSESSMENT
- THE FUTURE OF VIRTUAL SURGERY

Beth Israel Deaconess
Medical Center

HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL