



Society for Industrial and Applied Mathematics



**BREAKFAST
WITH SIAM LEADERSHIP**



40 SIAM student chapter members from the Illinois Institute of Technology, the University of Illinois at Chicago, and Northwestern University visit Argonne National Laboratory



Members of the University of California at Davis chapter at the fifth annual university research conference.



George Mason University chapter members at the third annual faculty research symposium.



**SIAM STUDENT CHAPTER
CERTIFICATES OF RECOGNITION
2013**



Gavin Lynch, (right) PhD candidate in our statistics program and president of the New Jersey Institute of Technology student chapter of SIAM, receiving his SIAM Certificate of Recognition from Chapter Faculty Advisor, Richard Moore.



Certificate of Recognition went to Qinglin Tang (right) by Professor Zuowei Shen , Head of Department of Mathematics, National University of Singapore (NUS) during the Graduate Symposium in Mathematics at NUS.



The SIAM Student Chapter Certificate of Recognition was presented to Rebecca Stockbridge (left) by Chapter Faculty Advisor Shankar Venkataramani .



Chris Rowlatt, President of the Cardiff University (Wales, UK) Chapter of SIAM received the Certificate of Recognition .



Maryam Yashtini, (left) President of the University of Florida chapter of SIAM with Faculty Advisor Bill Hager, (right) receiving the SIAM Certificate of Recognition.



The Tufts University Chapter President Stephanie Friedhoff (left) receives the SIAM Certificate of Recognition from Chapter Faculty Advisor James Adler (right).



SIAM Chapter member at the University of Michigan, Feng Wei (left) receiving the SIAM Certificate of Recognition from Faculty Advisor Peter Miller (right).



Northwestern University's Haley A. Yapple (center) received her SIAM Student Chapter Certificate of Recognition surrounded by professors and members of Northwestern's Chapter.



Students from the Chinese Academy of Sciences Chapter



Cardiff University's first SIAM Day, January 2013



Cardiff University research students, authors of the posters, and their guest lecturers at the First Annual SIAM Chapter Day at Cardiff University, UK, January 21, 2013.



George Mason University Chapter Picture: GMU SIAM members at Lake Braddock Secondary School (Fairfax, Virginia) Names left to right: Esther Jackson, Danielle Chaung, Byong Kwon (president), Diego Torrejon (vice president), Jon Van Laarhoven, Amy Schmidt (executive coordinator), Olivia Brozek (vice president), Jonathan Bode (treasurer), Chris Gray, Dorris Thomas





The University of Heidelberg Chapter visits IBM



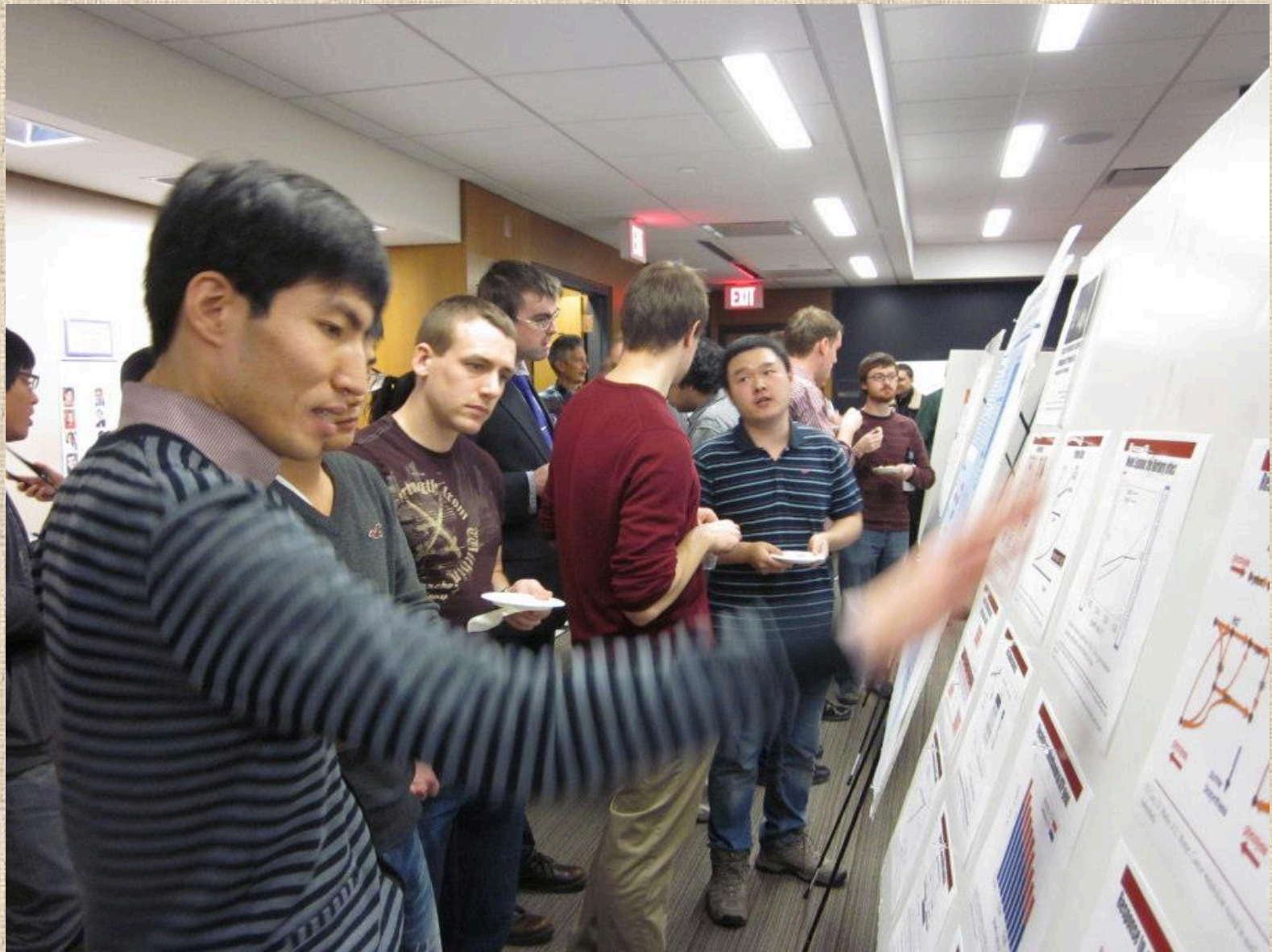
Qi Ye (left) from the Illinois Institute of Technology chapter with his faculty advisors.



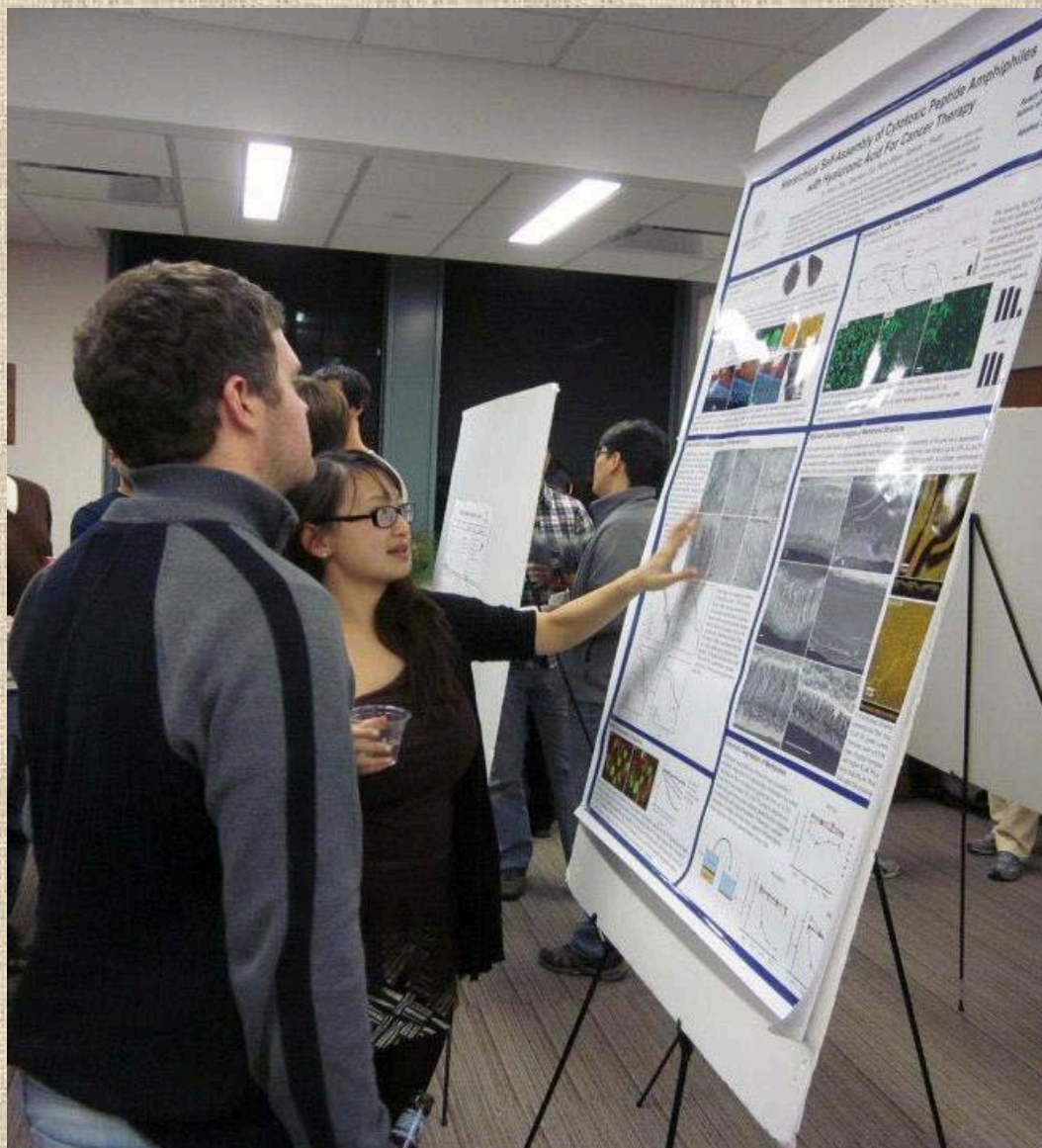
Louisiana State University Chapter meet to discuss upcoming events.



The Massachusetts Institute of Technology chapter organized volunteers to help with registration at 2013 CSE Conference in Boston, MA



Northwestern University Chapter at the poster presentation.





A crowded room applauding for Karl Janecek after his lecture for the Charles University in Prague presentation.



University of Oxford and Warwick University gather for a joint conference



Fourth Mid-Atlantic Recipients



Fourth Mid-Atlantic Student Conference attendees, April 12-13, 2013 held at Shippensburg University.



University of Reading Chapter of SIAM





Reduced global sensitivity analysis for surface flow problems

Fabio Nobilio*, Monica Rivoli*, Lorenzo Tamellini*

*Dipartimento di Ingegneria, Politecnico di Milano, Italy

modsim strategy

Interpretation: $\mathcal{M}$ is a polynomial space $\mathcal{P}_{\mathcal{M}}(x)$ and

$\mathcal{M}_{\mathcal{M}}(x) = \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x)$

over $\mathcal{M}$ always hold the order set $\mathcal{M}$ and a function f such that the space

grid sensitivity analysis approximation $\mathcal{M}_{\mathcal{M}}(x)$

Examples of polynomial spaces: $\mathcal{M}_{\mathcal{M}}(x) = \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x)$

• Sparse Product Space: $\mathcal{M}_{\mathcal{M}}(x) = \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x)$

• Total Degree Space: $\mathcal{M}_{\mathcal{M}}(x) = \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x)$

• "Standard" Space: $\mathcal{M}_{\mathcal{M}}(x) = \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x) + \mathcal{P}_{\mathcal{M}}(x)$

MAINTENANCE: Choose a polynomial space $\mathcal{P}_{\mathcal{M}}(x)$ and construct the approximation

space $\mathcal{M}_{\mathcal{M}}(x)$. Then compute the corresponding GPC coefficients $\mathcal{M}_{\mathcal{M}}(x)$

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