Publications and Presentations

- **Publications**
  - 2018
  - 2017

- **Presentations**
  - 2017

- **Other Press**
  - 2015
    - Honors and Awards for Project Participants
      - 2015


• S. I. Krasheninnikov and R. D. Smirnov, He cluster dynamics in W in the presence of cluster induced formation of He traps, Physica Scripta T167 (2016) 014021.


• 2015


• 2014


• 2013


Presentations

2017


• 2016


• 2015

• A. Lasa, E. Safi, K. Nordlund. "Multi-scale modeling to relate Be surface temperatures, concentrations and molecular sputtering yields." 57th Annual Meeting of the American Physical Society Division of Plasma Physics, Savannah, Georgia, November 18, 2015.


• M. A. Cusentino, B. D. Wirth. "Large-scale MD simulations investigating H plasma interactions with tungsten surfaces," 57th Annual Meeting of the American Physical Society Division of Plasma Physics, Savannah, Georgia, November 18, 2015 (poster).


• X. Tang and Z. Guo. "Why ions enter the sheath entrance at supersonic speed?" 57th Annual Meeting of the American Physical Society Division of Plasma Physics, Savannah, Georgia, November 18, 2015.


- B.D. Wirth on behalf of SciDAC-PSI team, "Modeling Plasma Surface Interactions Involving He on Tungsten", Southwestern Institute of Physics Plasma – Materials, Interactions Workshop, Chengdu, China, 20 April 2015.

2013


2014


- Karl D. Hammond and Brian D. Wirth, Modeling of Tungsten Surface Evolution Due to Low-Energy Helium Plasma Exposure. USA /Japan Workshop on Plasma-facing Materials, June 2014.


- Karl D. Hammond, Faiza Sefta, Thiibault Faney, Niklas Justlin, Donghua Xu, and Brian D. Wirth, Modeling of Tungsten Surface Evolution Due to Low-Energy Helium Plasma Exposure, Lorentz Workshop, Leiden, the Netherlands, January 2014.


- S. Krasheninnikov, MD modeling of He bubble growth in W and H desorption from W surface, oral, 20th ITFA Scrape-Off Layer & Divertor Topical Group Meeting, Prague, Czech Republic, October 20-23, 2014.


2012
  • Karl D. Hammond, Faiza Sefta, and Brian D. Wirth, Plasma-Induced Evolution of Surfaces, AIChE annual meeting, October 2012.
  • Brian D. Wirth, F. Sefta, K. Hammond, N. Juslin, and D. Xu, Plasma Surface Interactions (PSI): Bridging from the Surface to the Micron Frontier through Leadership Class Computing Plasma Surface Interactions (PSI): Bridging from the Surface to the Micron Frontier through Leadership Class Computing, invited talk, Scientific Discovery through Advanced Computing (SciDAC-3) Principal Investigator Meeting, Rockville, Maryland, USA, September 2012.
  • David E. Bernholdt and Jay Jay Billings, Plasma Surface Interactions (PSI): Bridging from the Surface to the Micron Frontier through Leadership Class Computing, poster, Scientific Discovery through Advanced Computing (SciDAC-3) Principal Investigator Meeting, Rockville, Maryland, USA, September 2012.

Other Press
  • 2015
    • Fusion Researchers Use Titan to Burst Helium Bubbles (OLCF Science Highlight)
      - https://www.olcf.ornl.gov/2015/05/05/fusion-researchers-use-titan-to-burst-helium-bubbles/
    • Double, Double Toil and Trouble: Tungsten Burns and Helium Bubbles (DOE Office of Science Discovery & Innovation Science Highlight)
    • Understanding Helium-Hydrogen Plasma Mediated Tungsten Surface Response to Predict Fusion Plasma Facing Component (ALCF highlight)

Honors and Awards for Project Participants
  • 2015
    • Davide Curreli Chosen as a 2015-2016 NCSA Faculty Fellow [NCSA] [UIUC NPRE]
    • Brian Wirth receives DOE 2014 Ernest Orlando Lawrence Award [DOE] [UT]
    • Barry Smith named an Argonne Distinguished Fellow [ANL]