## Publications and Presentations

### Publications

- **2018**

- **2017**

- **2016**


• 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.


• 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 Advanced Technology workshop, Changdu, China, 20 April 2015

2014

• K. D. Hammond and B. D. Wirth, "Large-Scale Simulation of Plasma-Facing Materials for Tokamaks and Linear Devices," AICHE annual meeting, Atlanta, Georgia, November 16, 2014.


• Brian Wirth, SciDAC-PSI: Plasma Surface Interactions Involving He, invited talk, Scientific Discovery through Advanced Computing (SciDAC-3) Principal Investigator Meeting, Rockville, Maryland, USA, July, 2013.


• Sergei Krasheninnikov, On the Physics of the First Wall in Fusion Devices, invited talk, 2013 International Sherwood Fusion Theory Conference, Santa Fe, New Mexico, USA, April 2013.


• R.D. Smirnov, S.I. Krasheninnikov, and M.J. Baldwin, Modeling of hydrogen retention and outgassing from co-deposits with distributed energy states, poster, 14th International Workshop on Plasma Edge Theory in Fusion Devices, Cracow, Poland, September 23-25, 2013.

• 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)
    • http://science.energy.gov/fes/highlights/2015/fes-2015-07-a/
  • 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]