



**Wednesday**  
**September 14, 2022**  
**1:30 pm**  
**Room 1013 Dow**

# Prof. Anne White

Massachusetts Institute of Technology

## Turbulence and Transport Research Beyond the Burning Plasma Era

The prospect of near-term fusion electricity opens new doors for university-based plasma physics research. Even after the grand societal challenge of putting fusion on the grid is achieved, research addressing grand intellectual challenges in plasma transport will remain vibrant. University groups will engage with sponsors and collaborators including not only governments and national labs around the world, but also private companies and utilities. In this talk I present side-by-side examples of recent research results on turbulence and transport measurements, as well as predictive simulation and modeling, carried out by researchers at MIT in support of both the nascent fusion industry and the established fission industry. I will share my perspective, as an academic department head, on the future of fusion research in universities as we move through and beyond the era of burning plasmas.

**About the Speaker:** Anne E. White is the head of the Nuclear Science and Engineering Department at MIT and MIT School of Engineering Distinguished Professor of Engineering. She received her PhD in experimental plasma physics in 2008 from UCLA and was a DOE Fusion Energy Sciences ORISE postdoctoral fellow before becoming an assistant professor at MIT in 2009. White performs fusion energy research at the Plasma Science and Fusion Center (PSFC) at MIT and is involved in research collaborations at tokamaks in the US and around the world. Prof. White is active in the fusion community, is a member of American Physical Society and American Nuclear Society, and has served on the executive committees and program committees of many workshops and conferences. She currently serves on the US DOE Fusion Energy Sciences Advisory Committee (FESAC). She has won numerous awards for her research, teaching and service to MIT and to the fusion community, and is an APS Fellow.