



Postdoctoral Research Associate, Fusion Plasma Fueling
You'll be working on essential technology for a fusion pilot plant! APPLY NOW!

In a burning fusion plasma, conventional fueling techniques based on gas puffing will not be adequate because the gas can't get past the plasma edge to reach the core. So how are we going to feed a fusion reactor? By injecting frozen fuel pellets! Cryogenic pellet injection will be essential for central fueling of the fusion reaction. However, this change in fueling source also affects other aspects of plasma behavior, and the impact of pellet fueling on several key aspects of burning plasma control is not yet resolved. We need you to help figure this out!

This postdoc position will combine computational and experimental studies in order to optimize pellet-fueling scenarios. The project will assess the compatibility of pellet fueling with edge-localized mode control by understanding the interaction of pellet fueling profiles with edge pedestal structure and stability. *No prior experience in these topics is required.*

You'll be a member of the ORNL Advanced Tokamak Physics Group working at the DIII-D National Fusion Facility in San Diego, CA. You will be utilizing unique, newly installed capabilities for pellet injection at DIII-D. Duties include:

- Planning and leading pellet-fueling experiments on the DIII-D tokamak
- MHD modeling of edge plasma response under pellet-fueling scenarios
- Working with a dynamic team of experimental and theory colleagues
- Maintaining a high level of scientific productivity by reporting research results through publications in peer-reviewed journals and presentations at scientific conferences and meetings.

Questions? Curious but want more info?

Contact Daisuke Shiraki (shirakid@ornl.gov) and/or Cami Collins (collinscs@ornl.gov)

