



Postdoctoral Research Associate, Fusion Energy

In a burning fusion plasma, cryogenic pellet injection will replace conventional fueling techniques based on gas puffing, due to its deeper penetration towards the plasma core where the fusion reactions primarily occur. 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.

This postdoc position will combine computational modeling and experimental studies utilizing unique new capabilities for pellet injection at DIII-D in order to optimize pellet-fueling scenarios. The project will assess the compatibility of pellet fueling with plasma exhaust handling by understanding the interaction of the pellet fueling cycle with divertor plasma detachment.

You'll be a member of the ORNL Advanced Tokamak Physics Group working at the DIII-D National Fusion Facility in San Diego, CA. Duties include:

- Modeling of divertor detachment during the dynamic pellet-fueling cycle
- Planning and leading pellet-fueling experiments on the DIII-D tokamak
- 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.

For more information about the position and the team, contact Daisuke Shiraki (shirakid@ornl.gov) and/or Morgan Shafer (shafermw@ornl.gov)

To apply, please visit the posting [here](#).

