

Postdoctoral Researcher in Computational Plasma Physics

The New Mexico Consortium (NMC) is seeking a Postdoctoral Researcher to join our team in Computational Plasma Physics. This role involves working on projects funded by DOE and NSF aimed at understanding nonlinear wave dynamics in magnetized plasmas. Key research areas include Alfvén wave parametric instabilities in laboratory plasma and whistler-mode chorus wave generation in Earth's magnetosphere.

Responsibilities:

- Develop, conduct, and analyze particle-in-cell simulations using the C++ code SMILEI (<https://smileipic.github.io/Smilei/>) and a Fortran hybrid code.
- Compare simulation results with laboratory and space observations.
- Prepare and publish research findings in peer-reviewed journals.
- Present results at academic conferences.
- Opportunity to gain hands-on experience in laboratory experiments on the Large Plasma Device at UCLA.

Qualifications:

- Ph.D. in Plasma Physics or a related field.
- Proficiency in plasma wave theory, C++/Fortran/Python, and particle-in-cell simulation.
- Experience with high-performance computing.
- Proven ability to publish research in high-quality journals.
- Strong communication skills and the ability to work independently.
- Candidates from underrepresented groups are especially welcome.

Position Details:

- Initial appointment for one year, with the possibility of extension based on performance and funding.
- Competitive salary commensurate with experience.
- Comprehensive package of benefits including medical, dental, vision, and life insurance, a retirement plan, and much more.

The appointment is expected to start in the winter of 2024, though the exact start date is negotiable. Applications received before September 30, 2024 will receive full consideration. The position will be located at Los Alamos, New Mexico. Interested applicants are encouraged to contact Dr. Feiyu Li (fyli@newmexicoconsortium.org) and Dr. Sean Fu (sfu@newmexicoconsortium.org) for questions.

Please apply using NMC [online application](#) form or by mail to NMC, 4200 W. Jemez Road, #301, Los Alamos, NM 87544. Please include a resume, a cover letter, and a research statement. Please also arrange for three letters of recommendation and list referees' names, institutes and emails in the application package.

New Mexico Consortium is an independent nonprofit Equal Opportunity Employer, M/F/Vet/Dis, E-verify employer.