

## COMPUTATIONAL PHYSICIST

ExxonMobil Research and Engineering Company has immediate openings for scientists at all career stages in the Engineering and Computational Physics Section at its Corporate Strategic Research Laboratories located in Annandale, New Jersey. The Engineering and Computational Physics Section is a multidisciplinary group of scientists conducting fundamental research in physics and computational sciences pertaining to the needs of the energy industry with particular focus in the areas of wave propagation, solid-fluid interactions, flow in porous media, granular physics, rock deformation and failure, multi-scale phenomena, and PDE-constrained optimization. The work environment is highly collaborative, and candidates are expected to work in partnership with experimental, theoretical and computational scientists across the organization. The successful candidate will create and use advanced computational techniques, collaborating with theoretical and experimental scientists to develop a deep conceptual understanding of physical phenomena. It is expected that he/she will become a leader in developing and applying novel numerical approaches to gain the key physical insights needed to address a broad range of technical challenges found in the energy industry.

The applicant should have a Ph.D. in Physics, Engineering, Applied Mathematics, or a related field. Candidates should have a solid background in fundamental physics, combined with a demonstrated interest in using state-of-the-art computational techniques for obtaining valuable physical insights at the appropriate length scale(s). Experience with large-scale parallel algorithms for PDE-constrained optimization and parameter estimation and/or multiscale modeling is desirable, as is an interest in wave phenomena, fractures and rock/soil mechanics, and granular media. We expect excellent oral and written presentation skills along with a strong record of publications and presentations, commensurate with career stage. The ability of the candidate to grow into new science areas will be a critical characteristic, as will the ability to work across disciplines and organizations.

ExxonMobil offers an excellent working environment, and a competitive compensation and benefits package. Please submit your cover letter, resume including a list of publications, and at least three references to our website ([www.exxonmobil.com/ex](http://www.exxonmobil.com/ex)) for posting associated with keywords "*Computational Physicist*". Additional information about the position can be obtained directly through e-mail by contacting Dr. Martin Lacasse <[martin.lacasse@](mailto:martin.lacasse@)> at [exxonmobil.com](http://exxonmobil.com).

*ExxonMobil's Corporate Strategic Research (CSR) laboratory is a powerhouse in energy research focusing on fundamental science that can lead to technologies having a direct impact on solving our*

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## *Research and Engineering*

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*biggest energy challenges. Our facilities are centrally located in scenic Annandale, New Jersey, approximately one hour from both New York City and Philadelphia.*

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