**Blue Waters Petascale Semester Curriculum v1.0**

**Unit 11: Domain Science: Astrophysical Fluid Dynamics**

**Lesson 1: Introduction to Domain Science**

**References / Further Reading**

*Developed by* *Roman Voronov for the Shodor Education Foundation, Inc.*



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*We want to hear from you! Please let us know your experiences using this material by sending email to* [*petascale@shodor.org*](mailto:petascale@shodor.org)

1. Introduction to Practice of Molecular Simulation: Molecular Dynamics, Monte Carlo, Brownian Dynamics, Lattice Boltzmann and Dissipative Particle Dynamics (Elsevier Insights) 1st Edition by Akira Satoh (Author) ISBN-13: 978-0123851482

ISBN-10: 0123851483 <https://www.amazon.com/Introduction-Practice-Molecular-Simulation-Dissipative/dp/0123851483>

1. Lattice Boltzmann Modeling: An Introduction for Geoscientists and Engineers 1st ed. 2006. Corr. 2nd printing 2006 Edition by Michael C. Sukop (Author), Daniel T. Thorne (Author) ISBN-13: 978-3540279815 ISBN-10: 3540279814 <https://www.amazon.com/Lattice-Boltzmann-Modeling-Introduction-Geoscientists/dp/3540279814>
2. Understanding Molecular Simulation: From Algorithms to Applications (Computational Science Series, Vol 1) 2nd Edition by Daan Frenkel (Author), Berend Smit (Author). ISBN-13: 978-0122673511 ISBN-10: 0122673514 <https://www.amazon.com/Understanding-Molecular-Simulation-Applications-Computational/dp/0122673514>
3. Introduction to Theoretical and Computational Fluid Dynamics 2nd Edition

by Constantine Pozrikidis (Author). ISBN-13: 978-0199752072

ISBN-10: 0199752079 <https://www.amazon.com/Introduction-Theoretical-Computational-Fluid-Dynamics/dp/0199752079>