Computer Simulation in the Physical & Life Sciences: From Chemistry to Materials & the Nano-Bio-Med Frontier

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Presented by…

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Abstract: The past decade has seen enormous progress in the broad application of computation to topical problems in science and engineering. By selected examples I will illustrate the current status of the field that employs computer simulation methodologies based on the principles of quantum mechanics and statistical mechanics to problems at the interface between materials science and chemical biology. The prospects for future applications in the biomedical arena will also be touched on, albeit briefly.

Bio: Dr. Klein is the Laura H. Carnell Professor of Chemistry at Temple University and the founding director of the Institute for Computational Molecular Science. He focuses on interdisciplinary research, collaborating with chemists, biochemists, physicists, and computer scientists using state-of-the-art computer simulations to model quantum and classical molecular behaviors. Previously, he served as the Director of the Laboratory for Research on the Structure of Matter at the University of Pennsylvania and was also the university's Hepburn Professor of Physical Science in Chemistry. He has authored nearly 600 scientific publications and edited four books.

More info:

https://chem.cst.temple.edu/directory/faculty/Klein/DrKlein.html

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