Jing Liu

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Research Interests

I have a very broad interests in computer aided life science, biology and physics. Currently, I am focus on X-ray single-particle imaging, including 3D molecular structure reconstruction, diffraction pattern recognition, etc. In addition, I am interested in high performance computing, image analysis, and machine learning.

Publications

- Engblom, S. & Liu, J. (2014). X-ray laser imaging of biomolecules using multiple GPUs. In: Parallel Processing and Applied Mathematics: Part I. Paper presented at PPAM 2013 (pp. 480-489). Berlin: Springer-Verlag
- Ekeberg, T. & Engblom, S. & Liu, J. (2015). Machine learning for ultrafast X-ray diffraction patterns on large-scale GPU clusters. In: Journal of International Journal of High Performance Computing Applications (pp. 29:233-243). SAGE Publications.
- Xing, W. & Hui, H. & Hong-li, Z& Hong-mei, M. & Jing, L.(2010). Dynamic Damage Evaluation of Network Availability Adjusted by Index Correlation. Published in: Internet Computing for Science and Engineering (ICICSE)

Presentations

HPC Meeting

- "Diffraction Imaging Reconstruction On GPUs", in UPMARC Winter Meeting at Uppsala. (February 27, 2013)
- " X-Ray Laser Imaging of Biomolecules Using Multiple GPUs", in PPAM 2013, Warsaw, Poland. (September 8-11, 2013)
- "X-Ray Laser Imaging of Biomolecules Using Multiple GPUs", in SIAM Conference on Parallel Processing
- "Molecular Structure Reconstruction From Single-Particle Imaging Using GPUs", in BIT Circus, Ume University, Sweden. (August 26-27, 2015)
- " Uncertainties in Coherent X-Ray Diffractive Imaging 3D Reconstructions", in 2016 SIAM Annual Meeting, Boston, USA. (July 11-14, 2016.)
- "Approaches for Coherent X-Ray Diffraction Imaging of Paramecium Bursaria Chlorella Virus-1", in 2016