Zhenwei Luo

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EDUCATION

Bachelor of Science (Hons.), Chemical Physics
University of Science and Technology of China, Hefei, Anhui, July 2013

PhD. Candidate, Engineering Physics
Rice University, Houston, Texas, since September 2013

COMPUTER SKILLS

Languages & Softwares: C, C++, Python, Java, Bash, Powershell, Refmac5, O, Shelx, Phenix.
Operating Systems: Linux, OS X, Windows.
Parallel Computing.

EXPERIENCE

Biophysics Fall 2013
Jianpeng Ma's Lab, Baylor College of Medicine, Houston.

- Developed a novel normal-mode-based protocol for modeling anistropic thermal motions of proteins in crystallographic refinement(to be published).
  In this protocol, proteins are divided into several blocks and the anisotropic displacement parameters of atoms in each block are modeled by its corresponding normal modes. Therefore, our new protocol can model the anisotropic displacement parameters of atoms in proteins more accuratelly and improve the structures of proteins comparing with other methods.

Biophysics Summer 2014
Jianpeng Ma's Lab, Baylor College of Medicine, Houston.

- Invented a new molecular replacement method which greatly increases the ability of molecular replacement method to solve structures with distant homology models.
  We adopted a maximum likelihood enhanced translation function to search all the possible combinations of orientations and translations, which has greater signal to noise ratio than the traditional divide and conqure strategy, thus making finding solutions for difficult molecular replacement problems possible.

HONOURS

- Outstanding Student Scholarship, Grade Two, Fall 2010.
- Outstanding Student Scholarship, Grade Three, Fall 2011.
- Outstanding Student Scholarship, Grade Three, Fall 2012.