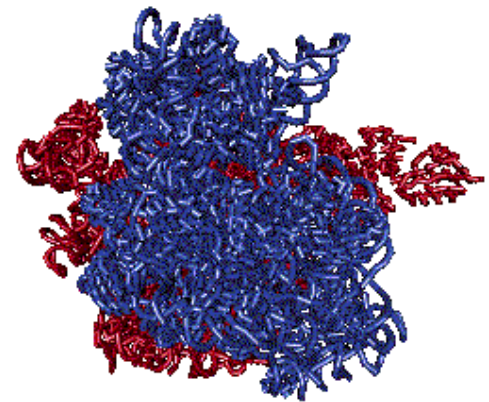


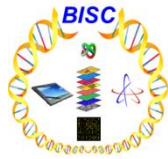
# Dr. Di Wu

## Department of Mathematics

### Research Interests:

- Bioinformatics and Computational Biology
  - Bio-system Database
  - Protein Structure Modeling and Drug Design
  - System Biology
- Applied Mathematics
  - Scientific Computing
  - Optimization and Linear Programming





# Dr. Di Wu

## Department of Mathematics

- Protein structure modeling:
  - Specifically, the knowledge-based method using protein geometric information has been studied, and it involves distance-based protein structure refinement and protein dynamics study. In addition, some mathematical tools regarding protein structure determination have also been investigated.
- Bio-system database:
  - With the increasing number of DNA sequences or known protein structures, it is important and valuable to investigate the statistical information from them. Geometric information from protein structure database turns out to be very useful in the study of protein structures, and a more detailed study will be conducted.
- System Biology:
  - Many biological systems, such as gene regulation network and metabolic pathway, could be studied in a system level. However, for the large system, the traditional method might not be very efficient and the interpretation of results might be also very difficult. Here, some developed algorithms and methods will hopefully resolve these problems.

