

Team Number: LAHS-4

School Name: Los Alamos High School

Area of Science: Computer Science

Project Title: Parameter Fitting with PSO

The goal of our project is to write a data fitting application. The purpose behind this application is to fit models to experimental data. This is especially useful in computational biology where there are many invalidated models. The current applications that attempt to do this no longer have anyone working on them and have many bugs. We will be implementing the Particle Swarm optimization algorithm in order to find parameter values and test to see if a model fits given experimental data. In order to fit the data in a timely manner, the application will be able to start many runs over multiple CPUs in workstations as well as have the ability to be run on GPUs.

Team Members

- Alex Ionkov
- Phillip Martin

Sponsoring Teacher(s)

- Adam Drew

Project Mentor(s)

- Latchesar Ionkov
- Bill Hlavacek