

# Introduction to Volume 9 Issue 2

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## Forward

This issue begins with an article by Taub, Armoni, and Ben-Ari that studied the impacts of programming simulations on the underlying physics knowledge of high school students. They used concept maps to compare students physics conceptual knowledge with those of experts at various stages of a course that used simulation programs to investigate physical phenomena. They found significant impacts on student's knowledge of physics concepts.

The article by Liang describes a series of graph algorithm visualizations that were used to teach graph algorithms in an undergraduate data structures and algorithms course. They found that the visualizations helped the student understanding of the algorithms.

Chen et.al. present a student paper that used a genetic algorithm to help optimize the selection of a feature set in the study of protein folding. They conclude that their method provides an efficient and accurate way to choose features used in molecular dynamics simulations.

The student paper by Luke et. al. describes the use of an artificial neural network model to assist with DNA sequencing. The model was tested against a number of published sequences and found to be highly accurate.

Finally, Vasquez, Mohl, and Leung in their student paper developed and parallelized a preprocessing program for that generates the input files for the OncoMiner genetic sequencing tool. The programs were then used to process the 35 datasets from patients with acute myeloid leukemia.