Simulating The Formation and Evolution of Galactic Star Cluster Hyades

Challenge: Discovery
Category: Senior
Region:
City: ,
School:

Abstract: Using Scientific Programming in Python, three-dimensional simulations showing the formation and evolution of Galactic/Open Star Cluster Hyades were obtained. This simulation used the N-Body Algorithm to explain the gravitational interactions of stars. Via star catalogues containing Cartesian coordinates, a three-dimensional model of present Hyades was computed. This meant the simulation's initial conditions could be changed until the quantity of stars inside spherical regions resembled Hyades.

Awards	Value
International Summer School for Young Physicists Award Sponsor: Perimeter Institute for Theoretical Physics	$2 500
Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	$100
University of Ottawa Entrance Scholarship Senior Bronze Medallist - $1000 Entrance Scholarship Sponsor: University of Ottawa	$1 000
Western University Scholarship Bronze Medallist - $1000 Entrance Scholarship Sponsor: Western University	$1 000
Total	$4 600