

CWSF 2009 - Winnipeg, Manitoba



Eddie Kim, Bryan Hatton

Watching Evolution

Division: Earth & Environmental Sciences / None

Category: Senior

Region: Waterloo-Wellington

City: New Dundee, ON, Kitchener, ON

School: Cameron Heights C.I.

Abstract: An original computer program was used to simulate the process of evolution by natural selection, and determine how environmental parameters affect the evolution of populations. The organisms chosen for the populations were mechanical pendulum-clocks, modeled as matrices of heritable data. The results supported the model of punctuated equilibrium, and also determined how changes in various environmental factors affected the evolution of populations.

Biographies

Eddie - My name is Eddie Kim, and I'm a grade 11 student at Cameron Heights C.I. At school, I participate in a number of activities, such as the instrumental band and the debate team. I am also the founder of the science team and the secular atheist society. Outside of school, I enjoy practicing Tae Kwon Do, playing the flute, and playing video games with my friends. I also enjoy writing computer software and writing web applications. After I complete high school, I plan to attend university to study to become a scientist. I believe that science is our road to the future, and I intend to do everything I can to use science to help humankind.

Bryan - Bryan is a resident of Kitchener, Ontario. He is fitness minded and has been involved in track and field, swim team and cross country running. He is currently in grade 11 and is a lifeguard for the City of Kitchener. One of Bryan's interests lies within the field of computer technology. As a member of the high school band, Bryan plays brass instruments, and pulls out his acoustic guitar for relaxation.

Awards

Value

The Actuarial Foundation of Canada Award - Senior	\$1 000
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$4 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
The University of Western Ontario Scholarship Gold Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$20,000 Entrance Scholarship (\$5,000 each year for 4 years) Sponsor: University of Ottawa	\$20 000
Gold Medal - Computing & Information Technology - Senior Sponsor: Intel of Canada, Ltd.	\$1 500
Total	\$32 500