

CWSF 2012 - Charlottetown, Prince Edward Island



Anna O'Grady

Unveiling Dark Matter: A Study of Dark Matter and its Effects on Galaxy Clusters

Challenge: Discovery

Category: Senior

Region: Eastern Newfoundland

City: St. John's, NL

School: Bishops College

Abstract: For my science project, I studied the various physical properties of a galaxy cluster, and through my observations, I was able to infer the existence of dark matter. In my project I retrieved data from an astronomical database, transformed the observed values into physical data, and finally calculated the kinetic and gravitational energies of the galaxy cluster.

Biography

Hi, I'm Anna O'Grady, and I'm a Grade 12 student from Bishops College, Newfoundland. In school I've completed my Physics public course, and this year I'm taking my Chemistry public course. I have an interest in good music and movies, and a strong interest in anything science. My main field of science is astronomy and astrophysics, something that I hope to see myself doing as a career. Last year at the CWSF, I received a Silver Medal, the Canadian Association of Physics Award, and I had the distinct honor of attending the International Summer School for Young Physicists - an experience I will never forget. At the regional science fair this year in Newfoundland, I was the Best in Fair, and I also received an award from the Royal Astronomical Society of Canada. Outside of school, I volunteer at my church every Sunday, and I've been taking piano lessons for twelve years.

Awards

Value

CAP Physics Prize - Senior Sponsor: Canadian Association of Physicists	\$1 000
Excellence Award - Senior - Silver Medal Sponsor: Youth Science Canada	\$700
Dalhousie University Faculty of Science Entrance Scholarship Senior Silver Medallist - \$2500 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$2 500
UBC Science (Vancouver) Entrance Award Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$10 200