

# CWSF 2011 - Toronto, Ontario



## Anna O'Grady

### The Hertzsprung-Russell Diagram

**Challenge:** Discovery

**Category:** Senior

**Region:** Eastern Newfoundland

**City:** St. John's, NL

**School:** Bishops College

**Abstract:** For my project I conducted a study and addition to the Hertzsprung-Russell Diagram. I demonstrated the calculations used to get from observed quantities to actual quantities; created a Hertzsprung-Russell diagram; and finally added a new feature to the diagram. Using astronomical models, I was able to add mass lines to the diagram, which creates a third layer of information on the Hertzsprung-Russell diagram.

### Biography

Hi, I'm Anna O'Grady, and I'm a Grade 11 student from Bishops College, Newfoundland. In school I'm taking my Physics public course, as well as second level Chemistry and Biology. 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. At the regional science fair in Newfoundland, I recieved the Women in Science and Engineering award, as well as 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 eleven years.

### Awards

### Value

CAP Physics Prize - Senior Sponsor: Canadian Association of Physicists	\$1 000
International Summer School for Young Physicists Award Sponsor: Perimeter Institute for Theoretical Physics	\$2 500
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
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
University of Ottawa Entrance Scholarship Senior Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Ottawa	\$2 000
<b>Total</b>	<b>\$12 700</b>