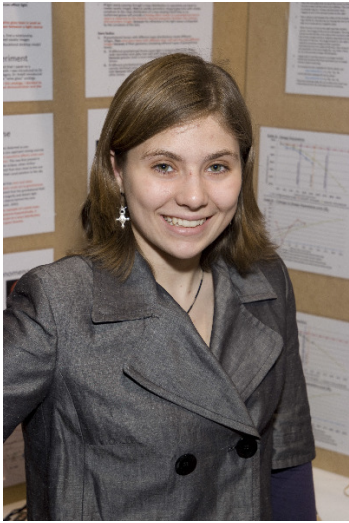


# CWSF 2008 - Ottawa, Ontario



## Kienan Marion

### Gravity: Through the Looking Glass

**Division:** International / None

**Category:** Intermediate

**Region:** Calgary Youth

**City:** Calgary, AB

**School:** Queen Elizabeth Junior Senior High School

**Abstract:** Gravitational lensing was modeled using wine glass bases as optical lenses. Caustic image separations and lens residuals were measured as each lens passed by a source. Results compared to theoretical astronomical objects indicated that relying solely on caustic image separation to classify a given lens may result in errors in identification, as evidenced by the examination of lens residuals.

#### Biography

I am 16 years old and in grade 10 at Queen Elizabeth High School in Calgary, Alberta. At school I am involved in soccer and track, and I am also the goalkeeper for a club team outside of school. I also play trumpet in our school's concert and jazz bands. I love progressive rock and classical music, and I am working towards my grade 9 piano exam in June. I have participated in science fairs since grade 6, and have attended two Canada Wide Science Fairs. For the past three years at the Calgary Youth Science Fair I have been presented with the Royal Astronomical Society of Canada Award, and at CWSF 2006 I was awarded a bronze medal and the Award for Excellence in Astronomy. I would like to take a combination of Physics, Music and English in university, specializing in astronomy and astrophysics, and continue playing soccer.

#### Awards

#### Value

The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
Silver Medal - Physical & Mathematical Sciences - Intermediate Sponsor: Encana Corporation	\$700
Total	\$2 200