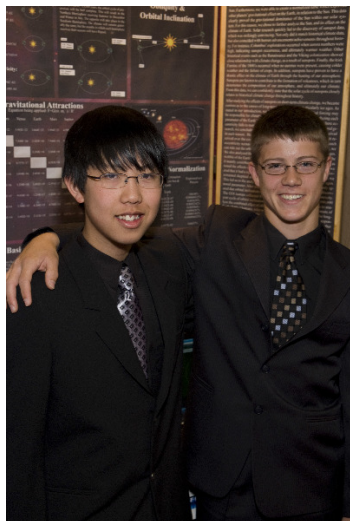


# CWSF 2008 - Ottawa, Ontario



## Cody Lee O'Neil, Derek Wai Yip Ling

### Orbital Forcing: An Astrophysical Solution to the Puzzle of Climate Change

**Division:** Engineering & Computing Sciences / Environmental Innovation

**Category:** Intermediate

**Region:** Central Okanagan

**City:** Kelowna, BC

**School:** Kelowna Secondary

**Abstract:** This project studies the effects of orbital forcing on the Earth's climate through the analysis of astrophysical cycles. Based on extensive orbital research and analysis, we have formed a plausible theory relating variations in the Earth's orbit to long-term climatic change, particularly ice ages. In addition, an attempt is made to relate the solar cycle of sunspots to short-term climate change associated with global warming.

#### Biographies

**Cody Lee** - At the age of 16, I am in grade 10 at Kelowna Secondary School in Kelowna, British Columbia. I take part in several extra-curricular activities such as hockey, rugby, tennis, volleyball, soccer, science clubs and more. In 2006, my hockey team won the provincial championships, and my rugby team won bronze at the B.C. Summer Games. Having attended the Canada-Wide Science Fair from 2005-2007, I hope to continue pursuing science projects in the future. Upon graduation, I plan to attend a Canadian university on a sports scholarship, pursuing a career in astronomy, with hopes of becoming an astronaut. I passionately believe in tenacity and determin...

**Derek Wai Yip** - My name is Derek Ling, and I am 15 years old. I am in Grade 10 and attend Kelowna Secondary School in Kelowna, BC. I've been to the past three science fairs and enjoy it very much. some of my interests are basketball, skiing and computers.

#### Awards

#### Value

Award for Excellence in Astronomy - Intermediate Sponsor: Royal Astronomical Society of Canada	\$750
Australian National Youth Science Forum Award	\$2 500
<b>Total</b>	<b>\$3 250</b>