

# CWSF 2011 - Toronto, Ontario



## Paul Albert-Lebrun

### Cavitation Hydrophobia

**Challenge:** Discovery

**Category:** Senior

**Region:** Waterloo-Wellington

**City:** Cambridge , ON

**School:** École secondaire Père-René de Galinée

**Abstract:** The project consisted in determining if the phenomena of cavitation could be reduced by adding hydrophobic coatings to a small boat propeller. The design of a cavitation tunnel was created. By the means of this tunnel, the propeller was tested at 30 degrees Celsius. The results show that cavitation is in fact reduced by hydrophobic coatings.

#### Biography

Paul Albert-Lebrun (16). I was born in France, but moved to England at the age of three, and then Canada at the age of seven. I am currently in grade 11 at the Pere Rene-de-Galinee school in Cambridge and am fully bilingual. Since I was young I have always loved cars, planes and rockets! This probably because my grandfather was an air force pilot and my father works in the space industry. My favorite subject at school used to be math, but it has recently changed to physics and chemistry. Last year I won a gold medal (biotechnology category) at the Kitchener-Waterloo science fair with a project entitled "the value of waste water and carbon dioxide". Outside of school I love physical activities and team sports such as soccer, volleyball and cross-country. I also like outdoor activities such as camping and canoeing. I was until recently a member of the local Scout group. Last year I went to OFSAA with my school soccer team. After high school I want to go to University to become an engineer.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	\$300
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
<b>Total</b>	<b>\$2 300</b>