

CWSF 2019 - Fredericton, New Brunswick



Jarek Richard Osika

Radio Eyes ? Blackhole Hunter

Challenge: Innovation

Category: Intermediate

Region: Northern Manitoba

City: Flin Flon, MB

School: Hapnot Collegiate

Abstract: My project is building a software defined radio telescope interferometer to detect the black-hole object Cygnus A in the Swan constellation 600,000,000 light years away from earth from my backyard. I am using two 33 inch microwave dishes tuned to 2.4 GHz with homemade bi-quad feeds made from copper wire, brass plating and coax cable.

Biography

Hello! My name is Jarek Osika, I am a grade 9 student at Hapnot collegiate school in Flin Flon Manitoba and I am 15 years old. I like science, computers and anything outdoors. I have a whole YouTube channel focused on science and projects. It is called Itz Jarek! My science fair project is on radio telescope interferometer tuned to 2.4GHz to detect a black hole object called Cygnus A. My radio telescope is made for sensing radio waves from outer space and graphing them on a computer using a Lime Software defined radio processor board along with some other components. I have been very interested and astounded by astronomy ever since I was little so I thought this project would be the right choice for me as I have been taking it farther each year. I am planning to keep going with this project as the years go by, i have been improving it every year to make it better and make it be able to detect more things farther away. If you are entering the science fair I encourage you to research and make a project on a topic you are interested in.

Awards

Value

CAP Physics Prize - Intermediate	\$750
Sponsor: Canadian Association of Physicists	
Total	\$750