OzGrav
ARC Centre of Excellence for Gravitational Wave Discovery

- Schools Programs -

"By enticing youths and adults alike into the world of science; by explaining to non-scientists how science works, and what great power it brings to us as individuals, to our civilization, and to the human race." - **Kip Thorne, Nobel laureate his contributions in gravitational wave physics**

The first observation of gravitational waves has led to an increased interest in general relativity. This new focus on gravitational wave astronomy presents enormous opportunities and a substantial responsibility for scientists and educators. Through its Education and Public Outreach program, the OzGrav team embraces the challenge to educate and engage students with discoveries that change the way we view the universe.

All of OzGrav's Schools incursions include lesson notes and supplemental worksheets for students and teachers and are aligned with Australian Curriculum Standards. Collaborative virtual reality is used in all programs! ***Fee waivers available.***

Mission Gravity! (90-120 min) - The flagship OzGrav Incursion program, Mission Gravity! combines classic scientific modelling with immersive virtual reality. In this incursion, students will collaborate in teams to create a model of stellar evolution by collecting and analysing data from a virtual trip to nearby stars. Students will use the laws of physics and the freedom of virtual reality to learn about how stars change over time and the tools scientists can use to study stars. Scalable for Years 7-12; $10 per student, min $100

Mission Gravity: The Life of a Star (50 - 60 min) - In this qualitative version of Mission Gravity, students collaborate to use VR to build a conceptual understanding of how stars evolve over time and how the stars' features change. They will use observations to model the basic evolution of a star. Best for Years 6-10 $8 per student, min $100

Explore Uncertainty with Mission Gravity (60 min) - Students will explore the validity of small angle approximations commonly used in Physics and Astronomy using data collected in VR. Best for years 11-12 / VCE Physics

Explore Gravitation with Mission Gravity (60 min) - Students will explore orbits, circular motion, and Newton's Law of Gravitation using data collected in VR. Best for years 11-12/ VCE Physics

Explore Blackbody Radiation with Mission Gravity (60 min) - Students will explore the relationships between colour and temperature of blackbodies by using data collected in VR to investigate Wein's Law, best for years 11-12/ VCE Physics

Questions: Email jbondell@swin.edu.au
Bookings: ozgrav.org/education