



University of the Third Age,  
Timaru

Series 5, 2019

# PHYSICS IS EVERYWHERE

Organised by Joan Harris and Jill Clarke

*U3A lectures are for members only.*

We regret we're unable to welcome visitors to our lectures. It would be unfair to those who have been on the waiting list for a year or more.

**26 Aug**    **An overview of Space Weather research**    *Professor Craig Rodger PhD*

The Sun is the main provider of energy for the Earth; without it we would surely die. However, the Sun is not just a huge light bulb sending heat and light to us - it is a gigantic fiery ball of burning gas on which the largest explosions in our solar system take place. The highly dynamic Sun affects the Earth in multiple ways. We are only just starting to understand how the Sun drives "Space Weather" - changes in the environment on and around the Earth which affect our technological systems.

**2 Sep**    **Project Alpine Fault Magnitude 8**    *Mat Darling BSc, MDRR*

Project AF8 [Alpine Fault Magnitude 8] is a collaborative effort to save lives by planning and preparing a coordinated response across the South Island after a severe earthquake on the Alpine Fault. This talk will consider the science of the Alpine Fault plate boundary which runs along the Southern Alps. It will show some of the modelling of likely impact, and show the multi-agency civil defence emergency management planning being undertaken.

**9 Sep**    **From the formation of the Sun to a habitable planet**    *Dr Annika Seppälä*

There is life on Earth thanks to the energy we get from the Sun. But where did the Sun come from and how were the planets formed around it? This talk will give an introduction to the formation of our Sun and what is needed for a life sustaining planet Earth.

**16 Sep**    **Vibrations: From Music to the Universe**    *Dr Roger Browne*

Vibrations are all around us, especially the light and sound that are part of our everyday lives. Some sounds generate music, illustrating how simple sounds combine in a way that we can enjoy. Radio waves (telecommunications), light waves and X-rays (CT scanners) are examples of vibrations in the electromagnetic spectrum. Finally, gravitational waves exist on a cosmic scale.

**Series 6: International Perspectives and Experiences**    **October 7, 14, 21, November 4**

**Lunch with visiting speakers:** Our guest speakers usually arrive in Timaru late morning and have lunch with the course organiser before coming to the meeting. Members are welcome to ask the course organiser for an invitation to the lunch meeting. Numbers will be limited, and members will pay for their own lunch.

Visit [www.u3atimaru.org](http://www.u3atimaru.org) to check the upcoming programme, download a copy of the newsletter, check the U3A calendar, download a copy of talk notes, find information and an application form for people who want to join.

## MEETINGS

West End Hall, 35a Maltby Avenue, Timaru.  
Lectures commence at 1.30 pm and conclude about 2.30 pm with questions to follow. Coffee/tea will be provided after the meeting.

## PLEASE ...

**Be seated by 1.20 pm**    Wear your name tag  
Turn your cell phone off    No talking during lectures  
Wait until the end of the lecture before asking questions  
Stand when asking a question and wait for the microphone

## OFFICE BEARERS AND COMMITTEE

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