



**Australian Institute of Physics
NSW Branch (Public Talk)**

**Is superconductivity just a laboratory
curiosity? *Why all the hype?***

**Dr Cathy Foley PSM
Science Director and Deputy Director
CSIRO Manufacturing**

Tuesday 13th March 2018 @ 6.30PM

At the
Slade Lecture Theatre, School of Physics, University of Sydney

Public talk arranged by

The Australian Institute of Physics (NSW Branch)

Summary of talk:

Superconductivity was discovered over 100 years ago serendipitously. Since then there has been multiple Nobel Prizes awarded to those who have unravelled the science and progressed the research field. But what really is superconductivity? Why has it been heralded as a property that if used could have major technological impacts? Does superconductivity have any relevance today?

This talk will explain the science of superconductivity and how it touches your life every day. It will do this weaving some history, personal stories and fun demonstrations.





Brief Biography of the Speaker:

Dr. Cathy Foley is the Deputy Director and Science Director of CSIRO Manufacturing. Previous to her current appointment, Cathy was Chief of the Division of Materials Science and Engineering. Her research is in superconducting devices and their application. Cathy has been involved in developing superconducting systems for mineral exploration, terahertz imaging, UXO detection and low noise wide bandwidth receivers. The most successful application has been LANDTEM™ which has assisted in unearthing over \$6B in mineral worldwide. Cathy has a world-class reputation in her field as recognised by Fellow of the Institute of Physics in the UK; Past-President of the Australian Institute of Physics; Fellow of the Academy of Technological Sciences and Engineering (ATSE); Past President of Science and Technology Australia (formally Federation of Australian Science and Technology Societies, FASTS); and Past Member of the Prime Minister's Science Engineering and Innovation Council (PMSEIC).

Cathy was awarded a Public Service Medal on Australia Day in 2003. In the same year, Cathy won the Eureka Prize for the promotion of science. In 2009 Cathy was the NSW and National winner of the Telstra Women's Business Award for Innovation. Cathy was also the recipient of the AUSIMM MIOTA award for LANDTEM™ as a mineral exploration tool. In 2013 she was awarded the NSW Premier's Award for Woman of the Year and in 2014 she was awarded the IEEE Council on Superconductivity Award for Continuing and Significant Contributions to the Field of Applied Superconductivity. Cathy and her team were awarded the prestigious Clunies Ross award for innovation and commercialisation for their invention, LANDTEM, in 2015 and awarded the Australian Institute of Physics Medal for Outstanding Service in 2016. Cathy has been an advocate for women in science, for the communication of science and science education over the last 30 years.

Detailed Schedule for Tuesday, 13th March 2018:

- **6.00-6.30 pm REFRESHMENTS, Slade Lecture Theatre**
- **6.35-7.30 pm LECTURE by Dr Cathy Foley**
- **8.00 pm DINNER with the Speaker at Buon Gusto (Italian), 368 Abercrombie Street, Chippendale**
E-mail Dr Fred Osman (fosman@trinity.nsw.edu.au) if you will be able to join us for dinner.

Travel Directions:

- Train to Redfern station and walk to the **School of Physics**.
- Buses 422, 423, 426, 428, 448, and 450 from Circular Quay to City Road / King, or 412, 435, 438, 470, 483 etc. along Parramatta Road from Circular Quay.
- Drive and park in various parking lots. You will need to pay for parking **\$6 flat-rate after 4 pm**) and display the ticket in your car. You may also find parking places on public roads outside the University.

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