

# **elab**orate

# March 2019

### Tēnā koutou

We're kicking off 2019 with a series of events around New Zealand to communicate the redefinition of the International System of Units (the SI), culminating with a celebration of World Metrology Day on 20 May. Say goodbye to the kilogram and find out what exciting technological innovations are on the horizon. I hope to see you at the events around the country.

Ngā mihi Fleur Francois Director, MSL





REDEFINING HOW WE MEASURE OUR WORLD

# SI Roadshow Events - register now for Dunedin, Christchurch and Hamilton

MSL are taking the kilogram on the road and invite you to register now for an event close to you. The Roadshow events will celebrate the new definitions and explain their application, as well as allowing you to hear guest speakers from industry and academia. We also have a Commonwealth Gold Medalist throwing away our reference kilogram. To find out more about this and to find the programmes for Dunedin and Christchurch and links to register, go to our <a href="website">website</a> now! Don't delay as these are public events and space is limited.

#### Dunedin

#### Thursday 21 March 2019 3:00 pm - 6:00 pm

Otago Museum, 419 Great King Street, Dunedin Register Now!

#### Christchurch

#### Thursday 28 March 2019 2:30 pm - 5:30 pm

Ministry of Business, Innovation and Employment, 161 Cashel Street, Christchurch Register Now!

#### Hamilton

#### Thursday 4 April 2019 2:30 pm - 5:30 pm

Waikato Innovation Park, 9 Melody Lane, Hamilton East Register Now

#### **Auckland**

#### Thursday 9 May 10:00 am - 5:30 pm

Unleash Space, Faculty of Engineering, Auckland University

#### Wellington

#### Monday 20 May 10:00 am - 5:30 pm

Callaghan Innovation, 69 Gracefield Road, Lower Hutt



Find out more



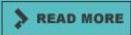


# PROFICIENCY TESTING PROGRAMME

**Interlaboratory Comparisons** 

# **MSL Proficiency Testing - register now**

We are now running a Proficiency Testing (PT) Programme. Participation in proficiency testing provides labs with an objective means of assessing and demonstrating the reliability of the data they are producing. We have now launched the programme on our website and registrations are open for the first three PTs, which are hand-held radiation thermometer, piston pipettes, and relative humidity hygrometer.





# Lego Kibble Balance

MSL hosted five students over the summer from universities around New Zealand. Our students worked on projects ranging from automation of the mass comparator, to Māori approaches to measurement, and building an operational Lego Kibble Balance.

Click READ MORE below to watch the YouTube video of the Kibble Balance construction.



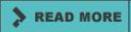
# Upcoming GPS Week Number Rollover Event



The Global Positioning System (GPS) has a week number parameter that is used for calculating date and time. This parameter is 10-bit, so the week number count 'rolls over' from 1023 to 0 every 19.7 years. The first GPS rollover occurred in 1999 and the next week number rollover will happen just before midnight (UTC) on 6 April 2019.

Some older GPS equipment could be affected by this and after the rollover event display an incorrect date. Newer GPS receivers and receivers with recent firmware updates should handle the event correctly.

Check with the receiver manufacturer if you have any concerns or see our website for further information.



## What's On!

As we start the countdown to the SI Redefinition at World Metrology Day on 20 May we'd like to keep you informed on what significant events we have planned that you can be a part of.

#### 15 - 17 April 2019

New Zealand Institute of Physics Conference
Hosted at Canterbury University with several MSL staff presenting talks/workshops.
Go to the Conference Website

#### 20 May 2019 World Metrology Day - MSL Wellington

Official launch of the redefined SI and the final salute to the International Prototype Kilogram. An exciting programme is taking shape with Keynote Speaker Michael De Podesta from NPL in the UK.

#### 20 - 24 May 2019

#### IEEE International Instrumentation & Measurement Technology Conference

Hosted at the Grand Millennium Hotel in Auckland this is another conference where MSL staff will have a big presence running workshops, giving presentations, and sponsoring International speaker Michael De Podesta from NPL in the UK. Go to the Conference Website

#### **MSL Training Courses 2019**

Run in Auckland and Lower Hutt in August, book before 30 June 2019 to receive the early bird rates. Registrations are open now.



## **MSL** on LinkedIn

Follow us on LinkedIn and keep up-to-date with stories, news and events.

Measurement Standards Laboratory of New Zealand

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