

Workshop 2 - New Developments in Stable Isotopic Measurements by Laser Spectrographs and High Precision Water Isotope Analyses

Date: **Wednesday, 13 May 2015 (17:00 – 18:30)**
Location: C-Building, 4th floor, **Board Room C**
What to bring: n/a
Registration limitation: n/a
How to register: n/a

Instructors:

Los Gatos Research: Doug Baer / LGR Staff
Picarro Inc.: Katherine Dennis / Renato Winkler
Thermo Fisher: Magda Mandic
IAEA: Leonard Wassenaar

This is an informational workshop that will introduce attendees to new possibilities and ongoing technological developments in laser spectroscopy for laboratory and field based isotopic measurements in the hydrological and earth sciences.

The workshop is intended for all persons interested in using lasers in their research or monitoring programs. Attendees can be current users, or those with no exposure at all to this rapidly developing analytical technology.

The latter part of the course will focus on lessons and challenges learned over the past 5-6 years in obtaining highest precision water (^{18}O , ^2H) isotopic data from all generations of water isotope laser instruments.

The following informational areas will be covered:

- Overview of isotopic measurements and technologies from Los Gatos Research (20 minutes);
- Overview of isotopic measurements and technologies from Picarro Inc. (20 minutes)
- Overview of Isotope Ratio Infrared Spectrometers and technologies from Thermo Fisher Scientific (15 minutes)
- Lessons in obtaining accurate and precise water ($^{18}\text{O}/^2\text{H}$) isotope data from laser
- Instruments (30 minutes).