## 2023 CMA Workshop Registration Form



# 55th Annual Conference & Exhibition April 23rd – 27th, 2023 Montréal, Québec

www.cma2023.com

- Registration includes admission to the Calibration for Analytical Measurements Workshop on Tuesday, April 25, 2023 / Time: 9:00 am to noon.
- The Calibration for Analytical Measurements Workshop is available for only registered delegates and exhibitors.
- Please submit your registration form by April 1st, 2023.
- No refunds after April 10<sup>th</sup>, 2023.
- Accommodations, travel and details for events not included in this registration form are available on our website <u>www.CMA2023.com.</u>
- Please return the completed form to:
  - Andrea McLaren, Technical Program Chair
  - Email: andrea.mclaren@oreas.ca

#### Calibration for Analytical Measurements Workshop - Delegate / Exhibitor Name:

First	Last
Company/Organization	Email
Job Title	

#### Address

Address Line 1	
Address Line 2	
City	State / Province / Region
Postal / Zip Code	Country

# **The Calibration for Analytical Measurements Workshop Fee:** 0 \$250.00

## Workshop: The Calibration for Analytical Measurements

<u>Presenter:</u>	Dr. Nimal De Silva Faculty Scientist/Manager, Geochemistry Laboratories, Advanced Research Complex, University of Ottawa, Ontario, Canada K1N 6N5
	ndesilva@uottawa.ca

Date / Time: Tuesday, April 25, 2023. / 9:00 am - noon.

#### Course Length: 1/2 day

#### Course Description:

- Overview of Basic Statistics
- Types and Propagation of Errors
- Signal Noise, Uncertainty and Dynamic Range
- Linear and Non-linear Regression for Calibration
- Weighted versus Un-Weighted Regression
- Optimum selection of Calibration Range and Standard Intervals
- Gravimetric versus Volumetric standards, and their Preparation
- Real World: Non-Linearity, Matrix effects, Blanks, Signal Drift
- Remedies: Standard Addition, Internal Standards, Drift Correction, Non-linear Calibration, Use of multiple responses
- Use and Misuse of Dynamic Range
- Evaluation and Visualization of Calibrations and Data from Large Data sets using EXCEL

Although the material discussed is universally applicable, examples will be taken mainly from ICP-ES, ICP-MS and Chromatography.

## **Payment Options**

Cheques Payable : 2023 CMA CONFERENCE

by post mail to:

Carl Chan – CALA Workshop Registration SCP SCIENCE 21800 Clark Graham Baie D'Urfé, Québec H9X 4B6

Additional payment options (credit card, Electronic Fund Transfer) may be found on the <u>CMA website</u>.

## Payment

CALA Workshop Fee

\$

## Amount Due: \$\_\_\_\_\_