



Training course on “Quantitative reconstructions and numerical methods for analysis of past climate variability using diatoms”

NCAOR, Goa, 21–24 November 2017

The National Centre for Antarctic and Ocean Research (NCAOR) and Norwegian Polar Institute (NPI) are organizing a training course on “*Quantitative reconstructions and numerical methods for analysis of past climate variability using diatoms*” at NCAOR, Goa, 21–24 November 2017. The course will be open for 6 early career researchers (advanced graduate students, PhD students and postdoctoral researchers), who are interested in paleoceanographic and/or paleoclimatic research.

The training course is organized in conjunction with the project workshop of the Indo-Norwegian research project “OCTEL”, which just successfully completed the first project year to investigate Ocean - sea ice - atmosphere teleconnections between the Southern Ocean and North Atlantic during the Holocene (<http://www.npolar.no/en/projects/details?pid=91b09089-b5e1-4028-84d4-98342a1b6077>).

The course will include a combination of lectures and exercises on diatom analysis and North Atlantic/Arctic diatom taxonomy, and numerical analysis methods for past climate variability. Students will give a poster presentation on their current research. Instructors: Dr. Rahul Mohan from NCAOR, India, and Dr. Arto Miettinen, Dr. Dmitry Divine, and Dr. Lisa Orme from NPI, Norway. For more information on the program, please check the draft program below. Participation at the training course, accommodation and meals included in the program are free. Participants must cover their own transport to Goa.

To apply for the training course, please send a single pdf document that includes short CV (less than 2 pages), a letter of interest (1 page), and a tentative title of a poster by **10 October 2017**, to Dr. Rahul Mohan (rahulmohan@ncaor.gov.in) and Dr. Arto Miettinen (arto.miettinen@npolar.no). The selected candidates will be contacted by 20 October 2017. For any questions about the training course, please contact organizers.

Dr. Rahul Mohan, NCAOR & Dr. Arto Miettinen, NPI
Lead PIs of the OCTEL project and organizers of the training course



DRAFT PROGRAM

Tuesday, 21 November

- 0900-1000 Registration
1000-1045 Opening and the introduction of the course
1045-1145 *Introduction to diatoms*
1200-1300 *North Atlantic/Arctic diatom taxonomy*
1400-1500 *Diatoms in paleoceanography and paleoclimatology*
1500-1630 *Different methods for quantitative SST reconstructions using microfossil data;*
Part 1: Calibration and transfer function -based methods
1645-1745 *Part 2: Similarity –based techniques*

Wednesday, 22 November

- 0930-1030 *Methods of data analysis;*
Part 1: An overview of timescale modelling techniques
1045-1215 *Part 2: Spectral methods of time series analysis including techniques suitable for non-*
evenly sampled data; non-parametric smoothing techniques
Practical training in two groups:
1315-1715 *Group A: Practical training for diatoms*
Group B: Practical training on quantitative paleoclimate reconstruction techniques

Thursday, 23 November

- 0930-1230 *Group A: Practical training continues*
Group B: Practical training continues
1330-1730 *Change in training (Group A -> training on reconstruction techniques; Group B -> diatoms)*
Group A: Practical training on quantitative paleoclimate reconstruction techniques
Group B: Practical training for diatoms
1900-2130 Course Dinner

Friday, 24 November

- 0930-1230 *Group A: Practical training for reconstruction techniques continues*
Group B: Practical training for diatoms continues
1330-1530 *Poster presentations*
1545-1645 Summarizing the course, general discussion, feedback, closing the course