



The Royal Society  
of Western Australia

RSWA Monthly Talks

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## Broadening horizons of palaeoclimate studies using advanced microanalytical techniques: examples from palaeoceanography



### **Dr. Aleksey Sadekov**

ARC Centre of Excellence for Coral Reef Studies (UWA node)

**Monday, 18th September 2017**

5.30 pm Kings Park Administration Building, Fraser Avenue

Free admission: To register online click [here](#)

Aleksey is currently a Research Fellow at the ARC Centre of Excellence for Coral Reef Studies located at the University of Western Australia. In his talk Aleksey will speak of his research investigating palaeoceanography around the WA coast. His research interests have covered a broad spectrum of the Earth Sciences with particular emphasis on past climate changes, paleoceanography and biomineralization. With work done at the University of Cambridge, Aleksey and his colleagues have investigated the link between Tropical Pacific paleoceanography and past climate changes during the last 25 thousand years. They have used the geochemistry of planktonic foraminifera to reconstruct the mean state of the Tropical Pacific (the long term average distribution of oceanographic and atmosphere parameters across the Equatorial Pacific) and the variability of El Niño Southern Oscillation (ENSO).



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Aleksey has studied the natural variability in geochemical signals of modern and fossil planktonic foraminiferal populations using various microanalytical techniques such as secondary ion mass spectrometry (SIMS) and laser ablation mass spectrometry. The aim has been to develop new proxies for past climate change and better understand effect of oceans on global climate.

Results of Aleksey's work provides a unique insight into the evolution of the ENSO system and its significant influence on global climate changes.

Further details:-

<http://www.web.uwa.edu.au/person/aleksey.sadekov>

<http://www.esc.cam.ac.uk/directory/aleksey-sadekov>

<https://www.nature.com/articles/ncomms3692>

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