

CNAES
HQP Research & Collaborative Exchange
Funding
Visit report

1. Exchange information

Visitor: **Aleksey Paltsev, PhD candidate, Theme II**

Supervisor: **Dr. Irena Creed**

Conference: **2017 American Geophysical Union Fall Meeting, New Orleans, USA, December 11-15, 2017**

2. Objective/Purpose

To present my research findings to international experts and scholars in the fields of ecology, limnology, and time series analysis. Additionally, I was looking for academic exchanges with researchers studying aquatic ecosystems – atmosphere interaction who will be interested in my research and other projects supported by CNAES.

3. Description of the visit

The conference consisted of 5 days covering almost all areas of natural and biological sciences from astrophysics and geodesy to lake ecology and biogeochemistry. I presented my poster during the first day of the conference. I had several people interested in my research; they were from both industry and academia. I also got several valuable feedbacks from them. In particular, one of the feedbacks was about the regression tree analysis I used to correlate air temperature and precipitation with chlorophyll a concentration and the ways on how the tree can be modified. I also attended several talks and poster presentation. One talk, in particular, was very interesting as the authors discussed current and future development of tree line in Canadian boreal forests. The authors used similar methods that I used not only in my own thesis but also in the Boreal paper in preparation of which I was involved in 2016-2017. Finally, I established connection with two authors studying resilience and regime shifts in natural systems. The authors were from USA and Germany. Although they study forest dynamics (but not phytoplankton dynamics which I study), connection with them will help me to improve and slightly modify my methods in detecting regime shifts in aquatic ecosystems. I left the conference with the knowledge that concept of regime shift has developed significantly over the last years and that many new methods in detecting regime shifts are being developed almost every day. Therefore, my priority for this 2018 year will be publishing my results and defending the thesis.