



# 2015 Aquatic Sciences Meeting

Aquatic Sciences: Global And Regional Perspectives — North Meets South

22-27 February 2015 — Granada, Spain

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## ABSTRACT

### A MULTISCALE OBSERVING APPROACH FOR UNDERSTANDING ACIDIFICATION PROCESS IN A MARGINAL SEA (NORTHERN ADRIATIC).

The Northern Adriatic is a shallow, semi-enclosed industrialized sub-basin of the Mediterranean affected by significant ecosystem changes, which are studied through several research activities including the long-term monitoring of ILTER international network. Changes of  $\text{pH}_T$  (-0.06) and TA (+74  $\mu\text{mol/kg}$ ) in dense winter waters over the last 25 years already showed that this area is prone to acidification process under a complex inorganic carbon chemistry variability. To understand these changes, monthly sampling of the main biogeochemical and biological parameters has been carrying out since 2008 by a fixed station (PALOMA, Gulf of Trieste). In 2013 the site has been implemented with continuous  $\text{pCO}_2$  measurements at 3 m depth and has been regularly visiting during basin wide surveys for the last two years. The combination of automated in situ measurements, monthly samplings and basin scale oceanographic cruises is used to better understand the processes controlling air-sea  $\text{CO}_2$  fluxes and inorganic carbon chemistry under three different scenarios: an extreme event of dense water formation, the phytoplankton blooms associated with riverine inputs and the late-summer marked oxygen under saturation in the deeper waters.

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#### DETAILS

Oral presentation

Session #:054

Date: 2/25/2015

Time: 09:30

Location: Andalusia 1 (Floor 1)

Presentation is given by student: No



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