

Preface to special issue

"Recent Advances in Adriatic Oceanography and Marine Meteorology"

Between 5 and 7 November 2008, a workshop entitled »Recent Advances in Adriatic Oceanography and Marine Meteorology« was held at the Center for Advanced Academic Studies in Dubrovnik, Croatia. The workshop was organized after a decade of intensive oceanographic and meteorological research of the Adriatic area. The investigations had been supported by numerous national and international projects that enabled state-of-the-art instruments to be extensively used in the Adriatic and novel modeling techniques to be applied on this sea and the overlying atmosphere. The resulting findings were and continue to be published in a number of papers, some of them collected in special journal issues. This work involves scientists from two communities – oceanographic and geophysical – that do not interact on a regular basis, at least not where the Adriatic is concerned. Therefore, one of the aims of the Dubrovnik workshop was to stimulate communication between the scientists engaged in diverse activities by enabling them to discuss the latest research results as well as the relevance of their findings to a number of issues, such as climatic variability, occurrence of mucilage and anoxia events, pollution control, protection against flooding, and safety of navigation, that are deemed important by the Adriatic-bordering countries. With more than sixty scientists engaged in relaxed presentations and lively discussions during three days in such a stimulating place as Dubrovnik (Orlić and Pasarić, 2008), the workshop ended up fully meeting expectations.

Additionally, some of the workshop participants responded to an *ad hoc* invitation extended by Prof. Zvezdana Bencetić Klaić, Editor-in-Chief of *Geofizika* who took part in the workshop, to submit their presentations for possible publications in the journal. The submissions underwent the standard reviewing procedure of *Geofizika*, and those that were accepted are included in this special issue. They reflect the breadth and quality of the recent Adriatic-related studies. Book et al. (2009) assimilate long time series of open-sea currents and bottom pressures in an oceanographic model with the aim of improving simulation and interpretation of the Adriatic tides. Telišman Prtenjak and Belušić (2009) use a meteorological model in order to reproduce a bora-related lee rotor previously observed near Malinska on the island of Krk. The response of the Adriatic to wind forcing is considered in two papers: Ferrarese et al. (2009) utilize a coupled atmosphere-sea model while considering the temperature variability during a bora episode and the current and temperature variability during a sirocco episode, whereas Korotenko (2009) concentrates

on the ability of an oceanographic model to reproduce the west coast current reversal and upwelling related to a sirocco episode. A rather comprehensive oceanographic model, reproducing not only hydrodynamic but also thermodynamic and biogeochemical processes, is used by Russo et al. (2009) in an operational forecasting scheme addressing hypoxic events that occasionally plague the north Adriatic. Campanelli et al. (2009) present temperature, salinity, fluorescence, oxygen, colored dissolved organic matter, nutrients, chlorophyll *a*, and phytoplankton data collected in a lesser known part of the Adriatic – the Kotor Bay. Finally, Vilibić (2009) uses scientometrics to demonstrate that recent international projects not only stimulated the collaboration of scientists studying the Adriatic from various countries, but they also considerably improved the impact of their publications.

Mirko Orlić, for the Editorial Board

References

- Book J. W., H. Perkins, and M. Wimbush (2009): North Adriatic tides: observations, variational data assimilation modeling, and linear tide dynamics. *Geofizika* 26, 115–143.
- Campanelli A., A. Bulatović, M. Cabrini, F. Grilli, Z. Kljajić, R. Mosetti, E. Paschini, P. Penna, and M. Marini (2009): Spatial distribution of physical, chemical and biological oceanographic properties, phytoplankton, nutrients and Coloured Dissolved Organic Matter (CDOM) in the Boka Kotorska Bay (Adriatic Sea). *Geofizika* 26, 215–228.
- Ferrarese S., C. Cassardo, A. Elmi, R. Genovese, A. Longhetto, M. Manfrin, and R. Richiardone (2009): Air-sea interactions in the Adriatic basin: simulations of bora and sirocco wind events. *Geofizika* 26, 157–170.
- Korotenko K. A. (2009): Modeling an unusual upwelling event observed along the western Adriatic coast in the summer of 2003. *Geofizika* 26, 171–189.
- Orlić M. and M. Pasarić, Eds. (2008): Workshop »Recent Advances in Adriatic Oceanography and Marine Meteorology«, 5-7 November 2008, Dubrovnik, Croatia (Book of Abstracts). Andrija Mohorovičić Geophysical Institute, Zagreb, 70 pp.
- Russo A., A. Coluccelli, I. Iermano, F. Falcieri, M. Ravaioli, G. Bortoluzzi, P. Focaccia, G. Stanghellini, C. R. Ferrari, J. Chiggiato, and M. Deserti (2009): An operational system for forecasting hypoxic events in the northern Adriatic Sea. *Geofizika* 26, 191–213.
- Telišman Prtenjak M. and D. Belušić (2009): Formation of reversed lee flow over the north-eastern Adriatic during bora. *Geofizika* 26, 145–155.
- Vilibić I. (2009): Bibliometric analysis of the Adriatic-related oceanography and meteorology publications. *Geofizika* 26, 229–243.