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Web portal on environmental sciences "ATMOS"

E. P. Gordov (1), V. N. Lykosov (2) and A.Z. Fazliev (3)

- 1. Siberian Center for Environmental Research and Training, Russia (gordov@scert.ru)
- 2. Institute for Numerical Mathematics RAS, Russia (lykossov@inm.ras.ru)
- 3. Institute of Atmospheric Oprics SB RAS, Russia (faz@iao.ru)

The Internet increasingly functions as the backbone of interdisciplinary collaborative research in area of environment, and becomes a tool for the efficient access to, and exchange of research data and tools. It also can give a public an access to related information thus rising concern on environment saving. The developed under INTAS grant web portal ATMOS (http://atmos.iao.ru and http://atmos.scert.ru) makes available to the international research community, environmental managers, and the interested public, a bilingual information source for the domain of Atmospheric Physics and Chemistry, and the related application domain of air quality assessment and management. It offers to professionals, students and the general public access to integrated thematic information, experimental data, analytical tools and models, case studies, and related information and educational resources compiled, structured, and edited by the partners into a coherent and consistent thematic information resource. While offering the usual components of a thematic site such as link collections, user group registration, discussion fora, news section etc., the site will be distinguished by its scientific information services and tools: on-line models and analytical tools, and data collections and case studies together with tutorial material.

The portal is organized as a set of interrelated scientific sites, which addressed basic branches of Atmospheric Sciences and Climate Modeling as well as the applied domains of Air Quality Assessment and Management, Modeling, and Environmental Impact Assessment. While primarily methodology oriented and being of a generic nature, many of the data sets and examples are based on two geographical areas, Lake Baikal and West Siberia, which are quite sensitive to climate variations and anthropogenic pressure. Each scientific site is open for external access information-computational system realized by means of Internet technologies. The main basic science topics are devoted to Atmospheric Chemistry, Atmospheric Spectroscopy and Radiation, Atmospheric Aerosols, Atmospheric Dynamics and Atmospheric Models, including climate models.

The portal ATMOS reflects current tendency of Environmental Sciences transformation into exact (quantitative) sciences and is quite effective example of modern Information Technologies and Environmental Sciences integration. It makes the portal an auxiliary instrument to support interdisciplinary projects of regional environment, especially those devoted to Siberia. It should be added that middleware developed to construct and support the portal sites allows one to design an informationcomputational site as a part of management system for such projects. First steps in this directed done within the interdisciplinary project of SB RAS No 138 "Siberian Geosphere-Biosphere Program" are described as well.

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