9TH EUROPEAN CONFERENCE ON
9th EMS Annual Meeting
Applications of Meteorology
High resolution meteorology
- applications and services

Air pollution linked to Remote Sensing tools – Science training using a Master's Level e-Learning Tool

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As we know it today air pollution is a release into the atmosphere of any substances, chemicals or particles, which are harmful both to the human and animal health as well as the health of the wider environment. The use of satellite based instruments is a young and developing research field and excellent for studying air pollution events over large areas at high spatial-temporal resolutions, especially when ground measurements, which are limited in spatial-temporal coverage, are not available.

Students on postgraduate level should be trained in using, and analysing remote sensing data from both ground and satellite based or in interpreting the high variety in remote sensing e.g satellite images or maps. As follows an e-learning online module has been devised and constructed to facilitate the teaching of Remote Sensing of Troposphere from Space to research students at a Master's level. The module, which is essentially an interactive on-line text book, is stand alone, although it could be encompassed within a standard course management system. The scientific content is presented as study pages under three headings: remote sensing from space, the basics of radiation transfer, and retrieval procedures for tropospheric satellite data.The student is encouraged to test his or her comprehension of the material through exercises on the scientific topics.