

EARSeL

EARSeL ADVANCES IN REMOTE SENSING

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EARSeL ADVANCES IN REMOTE SENSING

Aims

EARSeL Advances in Remote Sensing is an international journal serving the worldwide scientific and user community working in the field of remote sensing. Each issue of the journal is focussed on a particular theme, which has been analysed and discussed among international experts within a workshop or other special events organised by EARSeL.

The aims of the journal are:

- to fill the gap between technology and applications
- to enhance international exchange of information on new developments and applications
- to promote new areas of research and applications
- to foster the use of remote sensing and the interest of new scientists.

Language

All articles published in the journal are in English.

Refereeing

All contributions will be submitted to referees. Names of referees will be kept confidential, but the names of referees will be published in every third issue.

Proofs and Offprints

The principal or corresponding author will be sent proofs for checking and will receive 30 offprints free of charge. Additional offprints may be ordered on a form which accompanies the proofs.

Format

The large format (27.9 cm x 21 cm) of this journal is in line with all EARSeL publications and enables the inclusion of color and black and white illustrations of good quality.

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INTRODUCTION

The EARSel workshop "Lidar remote sensing of land and sea" was held in Firenze, Italy, in May 1991 at the Istituto di Ricerca sulle Onde Elettromagnetiche of the Consiglio Nazionale delle Ricerche (IROE-CNR).

The word LIDAR appeared for the first time in 1953 but the history of Lidar began in 1962 with the invention of the giant pulse laser which allowed its development. The first applications to remote sensing of the atmosphere were published in 1963, while the first experiments in remote sensing of natural waters were carried out some years later. Only in the last decade has lidar remote sensing of the ground surface and vegetation been introduced.

Lidar scientific meetings are held quite often but most of them are essentially devoted to atmospheric remote sensing. The main objective of this workshop was to assess the state of the art and to evaluate the potential of lidar techniques in the remote sensing of sea and vegetation.

The workshop was divided into three sections:

- VEGETATION - Devoted to the use of fluorescence lidars, both spectrally and time resolved, in the remote sensing of vegetation parameters.
- INSTRUMENTS AND TECHNIQUES - Where all the papers, except one, were devoted to the improvement of fluorescence lidar techniques.
- SEA AND FRESH WATERS - Devoted to the use of fluorescence lidars for the detection of water parameters and to lidar bathymetry.

A round table discussion on "Science and Industry in Lidar Remote Sensing of Land and Sea" concluded the Workshop.

Summarising the papers and discussions:

- The main activity in lidar remote sensing of land and sea is devoted to fluorescence lidar applications;
- The main effort, more than half of the papers, is at present on water remote sensing by fluorescence lidars (oil pollution, phytoplankton, turbidity) and elastic scattering lidars (bathymetry);
- There is a growing interest in the remote sensing of vegetation by means of fluorescence lidars particularly for stress analysis.

I would like to thank all the participants in the workshop and particularly the Co-Chairman, Dr. Rainer Reuter, for his help in the scientific organization, the EARSel Secretary Mrs. Madeleine Godefroy for the management of the workshop, and Mrs. Cristina Mealli and Mr. Fausto Meiners of IROE-CNR, for the local management.

Finally, I should like to thank for the support given to the workshop:

- C.E.O., Centro di Eccellenza Optronica, Firenze, Italy;
- EG&G S.p.A., Milano, Italy;
- EL.EN. S.R.L., Firenze, Italy;
- Fondazione Scienza per l'Ambiente, Firenze, Italy;
- Officine Galileo S.p.A., Firenze, Italy.

*Professor Luca Pantani
Workshop Chairman*

INSTRUCTIONS FOR PAPERS TO BE INCLUDED IN THE EARSEL INTERNATIONAL JOURNAL “ADVANCES IN REMOTE SENSING”

Papers presented at EARSeL Workshops are printed, after reviewing, in the EARSeL International Journal “Advances in Remote Sensing”.

Conditions and instructions to be followed by authors are the following:

- papers must be submitted in their final form at the Workshop registration desk;
- the reviewers comments will be sent to the authors within two months after the meeting;
- after receiving the reviewers recommendations, authors are requested to send their final papers on diskette using MS-DOS operating system (Word processor: Wordstar; Word; Chiwrite, etc.); (Desk Top Publisher: Ventura);

Papers have to be sent to
Dr. Anna Calandro

Istituto di Gasdinamica - Facoltà di Ingegneria
Piazzale Tecchio, 80 - 80125 Naples - Italy
Tel: 39-81-7682176 Fax: 39-81-7682160

- Each paper must be accompanied by a 100 to 200 word abstract, written as a single paragraph. It should be a summary and complete in itself. The abstract should indicate the subjects dealt with in the paper and should state the objectives of the investigations.

- The text should contain:

(a) Introduction, (b) Main text with sections and subsections numbered, (c) Conclusions, (d) Acknowledgements, (e) Appendices, (f) References, (g) Tables, (h) Illustrations.

- The title should be brief and concise. The author's name should be typed on the line below the title, and it is preferable to use the full name. The company affiliation should follow on the next line, with the author's official title and complete mailing address given in a foot note.

- Equations and symbols should be typewritten. Symbols that are not available on the typewrite may be hand written, but clarity is essential.

- Illustrations (diagrams, drawings and photographs) should be in black and white, or in colour if strictly necessary. Photographs should be glossy prints. Each figure must have a caption; captions should be listed on a separate sheet. Illustrations numbered in a single sequence from 1 upwards and with the author's name on the back of each illustration. Cite each figure in numerical order in the text.

- Each table must be on a separate sheet accompanied by a caption.

- References should be cited in the text thus: (Smith, 1975); and listed in alphabetical order in the reference section.

The following arrangements should be used:

Journals: BENNY, A.H., 1980, Coastal definition using Landsat data. Int. J. Remote Sensing, 1, 225.

Books: JACQUES, E., 1976, A General Theory of Electromagnetics (London: Heinemann)

Reports: HARNAGE, J., and LANDSEER, D. (editors, 1975, Landsat-D) thematic mapper technical working group. Final Report, JSC-099797, Johnson Space Center, Huston, Texas.