

EARSel

EARSel ADVANCES IN REMOTE SENSING

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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

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- 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.

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.

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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FOREWORD

During the last few years the scientific and application community has taken an increasing interest in SAR Interferometry, in view of its high potential for many geophysical applications such as geology, geomorphology, snow cover, etc.

Several aspects of SAR Interferometry still require a significant effort to be fully understood, including the complex interaction between the electromagnetic wave and the Earth's surface and the difficult integration of SAR technology and interferometric data processing.

Two years after the first NASA DC-8 TOPSAR deployment in Europe, the European Association of Remote Sensing Laboratories (EARSeL) in its continuous effort to foster new remote sensing techniques, has taken the initiative to organise this workshop, jointly with Jet Propulsion Laboratory (JPL) and the Consortium for Research on Advanced Remote Sensing Systems (CO.R.I.S.T.A.).

The Workshop gave scientists the opportunity to analyse and discuss the different problems of SAR interferometry and the latest results obtained within their research programmes.

The papers presented at the Workshop described various examples of results obtained by using single-pass (TOPSAR) and multi-pass interferometric data (ERS-1) and dem-

onstrated the advantages and disadvantages of the two different approaches.

In addition various papers were focused on the twin satellite interferometric mission (TOPSAT), to explain the results of the joint working group study between NASA and ASI.

The discussion was extremely fruitful and allowed the identification of a number of technical problems such as:

- decorrelation aspects regarding single-pass and multi-pass SAR Interferometry;
- accuracy of the baseline components measurement and its impact on the error budget;
- methods to validate SAR Interferometry and evaluate DEM accuracy;
- needs and cost-benefit of a dedicated SAR Interferometry space mission such as TOPSAT.

In conclusion, I would like to thank all the participants, the reviewers, the co-chairman Tim Dixon, the Scientific Committee for their help in the scientific organization of the workshop and the Organizing Committee, Anna Calandro, Anna Maria Esposito and Madeleine Godefroy, who have given their touch of beauty and kindness for the success of the social events.

Prof. Sergio Vetrella