



Call for Papers

IEEE Transactions on Image Processing

Special Issue on *Molecular and Cellular Bioimaging*

Advances in fluorescent probing and microscopic imaging technology have led to an explosive increase in the acquisition of digital images for biological studies. Biologists are now able to address questions previously un contemplated and to improve our understanding of the functional organization of biological systems at the molecular, cellular, and histological levels. Techniques for automated image processing and analysis are already playing a major role in this endeavor and will soon become of crucial importance in finding answers.

This special issue of the IEEE Transactions on Image Processing will publish papers presenting state-of-the-art methods in digital image processing and analysis and describing how these methods contribute to the understanding of biological mechanisms. Original, previously unpublished research and review papers are sought in all areas relevant to the field, with particular emphasis on automated image interpretation and modeling. Special attention will be given to contributions describing methods with a thorough experimental validation.

Papers on all cellular and subcellular imaging modalities are welcome, especially those dealing with living cells. Owing to the interdisciplinary nature of these contributions, review will typically be performed by at least one expert each in the fields of computer vision and quantitative biology.

SUBMISSION PROCEDURE

Prospective authors should prepare manuscripts according to the Information for Authors as published in any recent issue of the Transactions and available on the web at <http://www.ieee.org/organizations/society/sp/infotip.html>. Note that all rules will apply with regard to submission lengths, mandatory overlength page charges, and color charges.

Manuscripts should be submitted electronically through the online IEEE manuscript system, Manuscript Central, at <http://sps-ieee.manuscriptcentral.com/>. Authors must follow the instructions for the IEEE Transactions on Image Processing, select as manuscript type “Special Issue of T-IP on Molecular and Cellular Bioimaging”, and also indicate in the Comments to the Editor-in-Chief that the manuscript is submitted for publication in the Special Issue on Molecular and Cellular Bioimaging. A completed copyright form must be signed and faxed to 1-732-562-8905 at the time of submission. Please indicate the manuscript number on the top of the page.

SCHEDULE

Submission deadline: December 1, 2004
Notification of acceptance: April 1, 2005
Final manuscript due: June 1, 2005
Publication: September, 2005

GUEST EDITORS

Dr. Robert F. Murphy
Depts. of Biological Sciences
and Biomedical Engineering
Carnegie Mellon University
4400 Fifth Avenue
Pittsburgh, PA 15213, U.S.A.
Email: murphy@cmu.edu

Dr. Erik Meijering
Depts. of Medical Informatics and
Radiology, Erasmus MC–University
Medical Center Rotterdam
P.O. Box 1738, 3000 DR
Rotterdam, The Netherlands
Email: meijering@imagescience.org

Dr. Gaudenz Danuser
Lab. for Computational Cell Biology
The Scripps Research Institute
10550 N. Torrey Pines Road
La Jolla, CA 92037, U.S.A.
Email: gdanuser@scripps.edu