Geoinformatica – Review Guidelines

1. **Focus of Journal:** Geoinformatica publishes articles on advances in computer science (CS) for geographic systems and services. Thus reviewers expect a survey of CS literature, e.g. GeoInformatica, Springer lecture notes in Computer Science, ACM/IEEE-CS publications to bring out CS advances for GIS. They have also expected CS advances for GIS to be general, e.g. applicable to more than one application domain. They have often found following kinds of paper outside GeoInformatica scope: (a) application of a previously-known computer science concept or software to a new GIS problem, (b) computer science advances with tenuous connection to GIS problems, and (c) preliminary results which requires substantial development to be comparable to archival quality journal papers and are better suited for workshops or conferences.

2. **Scientific Journal:** Geoinformatica is a scientific journal and publishes articles, as any other scientific journal, which advance science. It is therefore expected, that articles explain the current state of the art and point out what the advance in science is.

3. **No application reports:** Geoinformatica does not publish reports describing applications of computers (or well-known computer science ideas) to geographic or generally geo-scientific problems. We expect articles to communicate to readers a general rule which is applicable in future cases and constitutes a novel contribution to scientific knowledge.

4. **Novelty of contribution:** Authors should clearly point out early in the manuscript what is the novel contribution to science in their contribution. A systematic review of the state in a subfield of Geographic Information Science is welcome. Review articles may meet "novelty requirement" by providing new taxonomies of literature and identifying new challenges.

5. **No epsilon improvement papers:** We discourage manuscripts which report on minimal improvements compared to previously published work including those of authors in other workshops, symposia and conferences; the novelty of a contribution must be substantial. Neither an obvious extension of previous work nor a variation of previously published results is sufficient to warrant publication.

6. **No computer science only:** Articles which report on advances in computer science without convincing relation to geosciences are not within the scope of Geoinformatica. Typically articles published in Geoinformatica have extensive references to previous publications in Geoinformation science, as well as references to a topical geo-science and computer science.

7. **Size of articles:** Shorter articles are encouraged; typically articles have 5000 to 7000 words.

8. **Three reviewers:** Normally a manuscript is reviewed by three independent reviewers. It should be avoided that all three reviewers are from the same country or the same scientific "school of thought"; normally at least one of the reviewers is a native speaker of English.

9. **Second round of reviews after major revisions in a manuscript:** Manuscripts which need major revisions undergo usually a second round of reviews (after minor revisions, an editor can decide directly if the authors have found satisfactory solutions to the requests of the reviewers). A second round of reviews can proceed with a smaller number of reviewers, preferably including some of the first round reviewers.

10. **Transformative, but Controversial, articles:** Manuscripts challenging conventional wisdom often attract extremely divergent ratings ranging from very interesting to reject. Yet, these are important for the transformative advancement of science. Editors will carefully evaluate the opinions of the reviewers and may accept contributions based on some positive reviews, despite some strongly negative reviews.

11. **Special section Proposals:** Special section proposals should include a brief description of special section topic, relevance to Geo-Informatica, timeliness of topic, a list of recent meeting (e.g., workshops, conferences) and publications on the topic, a list of potential contributors (e.g., authors, reviewers, co-organizers), a plan to publicize call for papers, etc. It should also include a schedule for milestone activities, e.g., call for paper, manuscript due date, review completion dates, a process to select up to 4 best papers, revised manuscript due date, camera ready paper due date, guest editorial due date, etc. The proposal should list relevant leadership experience of organizers.

12. **Reviewers of Special Section:** Authors of articles of special issues can be invited as reviewers for other manuscripts suggested in a special issue, but the majority of the reviewer must be recognized specialists in the fields other than authors of proposed manuscripts for the special issues.

    Springer leadership welcomes articles, which are likely to attract higher citations. Thus, GeoInformatica suggests that the set of review criteria for choosing papers for the special issue include potential for high citations along with other criteria chosen by the conference leaders.

13. **Special section size:** A special section is a subset of a regular issue and contains about 4 full-length (5000 to 8000 words) articles. Other arrangements require prior agreement with the editors in chief.

14. **Quality Assurance for Special Sections:** Special section proposals should include a quality assurance plan, e.g., invitation to best 4 papers from a selective symposium accepting full-length manuscripts, selection of quality reviewers, asking reviewers to compare quality of manuscripts with those for recent papers in Geoinformatica, a process to ensure that revisions address reviewer comments, etc. Decisions for special section paper should not be made prior to submission of full-length (5000 to 8000 words) papers. All recommended papers should meet all criteria listed in this guideline including criteria 1 through 6. Geoinformatica reserves a right to invite independent reviews for papers recommended by special section editors. Such papers may be rejected if independent reviewers are not comfortable with their quality.

15. **Conflicts of interest:** Selection of reviewers should honor the NSF conflict of interest guidelines: Ph.D. advisor/advisee is a mutual exclusion for life, avoid co-workers at the same university in the past 3 years, avoid co-authorship in the past 3 years, avoid family ties, etc.

16. **Manuscripts by editors:** Manuscripts by editors must be handled by another editor and the process completely separated and inaccessible to the author. This is difficult to achieve and therefore, it is recommended that manuscripts by the editor should be published preferably in other journals. Guest editors can contribute an editorial, which is reviewed by another editor but not formally reviewed by outsiders. Guest editors may not submit articles in the special section they are organizing.

17. **Immediate rejection:** Manuscripts which do not fall in the scope of the journal or which are defective in language or presentation can be rejected by the editors without review. We value the contribution to the quality of the journal by our reviewers highly and manuscripts which have no chance to be accepted are rejected with minimal or no review by the editors in chief.