Journal Papers

The Primary Archive for Your Work

Audience

- ☐ Equal peers (reviewers and readers)
- ☐ Peer-reviewed before publication
    - ☐ Typically 1 or 2 iterations with reviewers before acceptance
- ☐ Write so that the audience could duplicate your work
    - ☐ Include all necessary details (parameters, algorithm specifics, etc)

Why Publish?

☐ **Peer recognition**

    ☐ career development, professional contacts, etc

☐ **Required in some professions**

    ☐ university faculty

    ☐ government researcher

    ☐ Industry researchers seldom publish in journals; more commonly in conferences

Contribution to your field

☐ Example: in documentation for IDL 5.1 (Research Systems Inc):

CUBIC interpolation

Set this keyword to a value between -1 and 0 to use the cubic convolution interpolation method with the specified value as the interpolation parameter. Setting this keyword equal to a value greater than zero specifies a value of -1 for the interpolation parameter. Park and Schowengerdt (see reference below) suggest that a value of -0.5 significantly improves the reconstruction properties of this algorithm. This keyword has no effect when used with 3-dimensional arrays.

S. Park and R. Schowengerdt, 1983 "Image Reconstruction by Parametric Cubic Convolution", Computer Vision, Graphics & Image Processing 23, 256.

The "Process"

☐ Since journal papers are peer-reviewed, there is a multi-step, iterative process
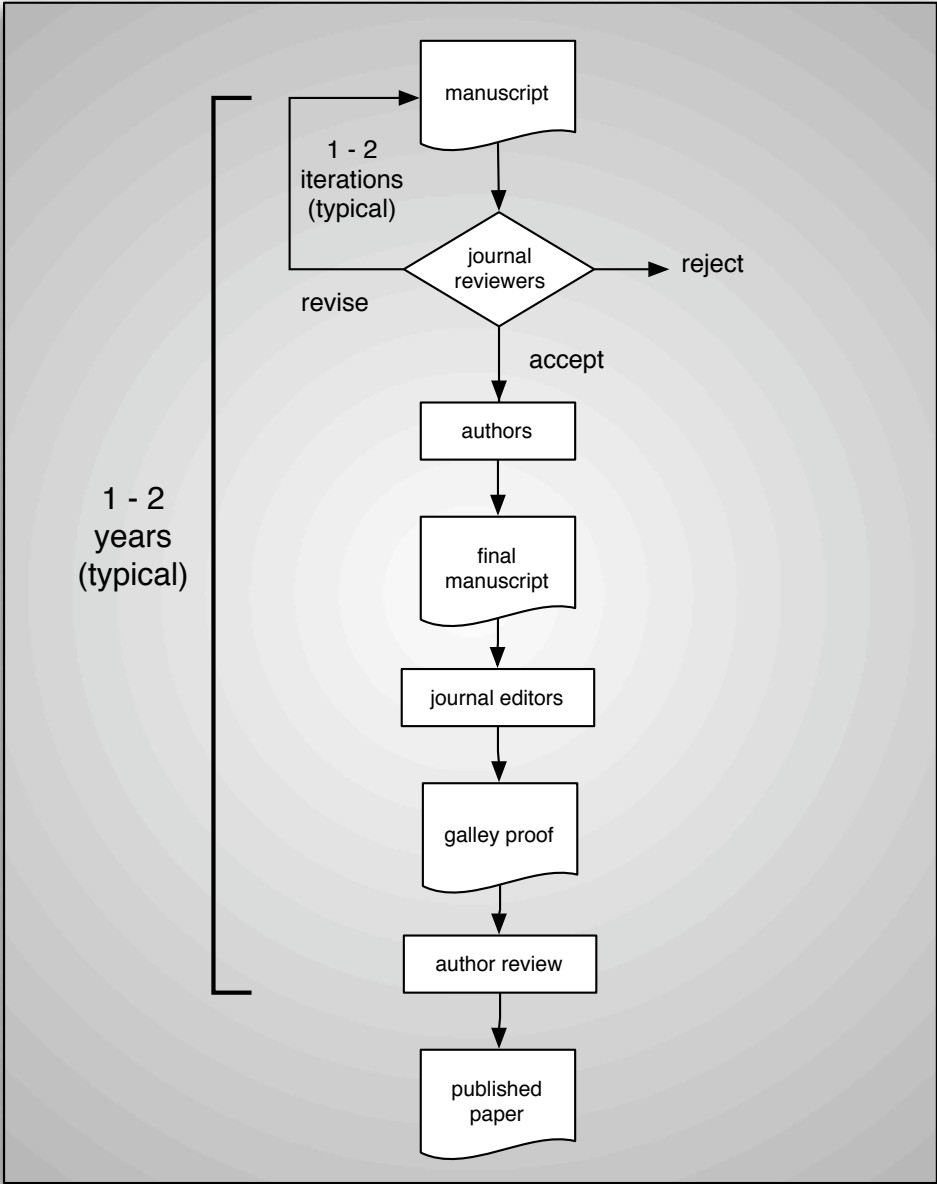
☐ Reviewers are anonymous equal peers

    ☐ typically, 2 or 3 reviewers

☐ Example review criteria (varies by journal)

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Journalistic Criteria
    Appropriateness:            2
    Interest to audience:       4
    Quality of writing:         3
    Organization/Clarity:       2
    Length relative to substance:  3
    References to literature:   2

Scientific Merit
    Novelty of results:         3
    Significance of results:     4
    Technical accuracy:         3
    Rigor:                      3
    Experimental results:       4
    Substantiation of conclusions: 3
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Manuscript Format

- ☐ Usually, simple double-spaced format for review manuscript

- ☐ Final accepted manuscript formatting typically done partially by authors (word processor file) and completed by journal editors

  - ☐ IEEE offers LaTeX and Word style templates

- ☐ Some journals still do all formatting

☐ Things to check before submitting for review (beyond technical content, of course)

    ☐ references

        ☐ are all the listed citations actually referenced in the text?

        ☐ are all references in the text actually listed in the citations?

    ☐ figures and tables

        ☐ are all numbered correctly?

        ☐ are all included?

    ☐ pages

        ☐ are they numbered?

Author Order

- ☐ Not alphabetical

- ☐ Not by seniority

- ☐ Usually, in order of contribution

  - ☐ Occasionally, the person who does most of the work in writing the paper is first author

- ☐ Should be agreed upon by all authors early in the process

Content

- ☐ **Similar to theses and dissertations**

  - ☐ abstract

  - ☐ introduction/background

  - ☐ approach

  - ☐ description of research

  - ☐ results

  - ☐ summary and conclusions

  - ☐ acknowledgments

  - ☐ references

  - ☐ tables

  - ☐ figures

Length

- See journal guidelines

- Typically, 30-50 double-spaced pages in review manuscript

- "Communications" or "Letters" types of papers are significantly shorter by factor of 3 or 4

General Advice

☐ Group tables and figures at the end of text

    ☐ Tables and figures embedded in the text facilitate reading, BUT are much more difficult to do successfully in a word processor

    ☐ Very common in review manuscripts

☐ Use color sparingly (very expensive to publish)

☐ Don't worry about formatting details - at least until acceptance

   ☐ Spend time on content, accuracy, and clarity of manuscript

morning on July 1, 1999, a series of yoke-based measurements of $\rho_{s\lambda}$ was made over an area of 4×4 Landsat-7 ETM+ 30-m pixels within the mine target. The results showed a good correlation with θ_s over a range from $20°$ to $50°$ with a MAD between measured and modeled values of less than 0.01 for TM spectral bands 1–4 (Table 2, Fig. 3a). This good relation was achieved despite the internal heterogeneity of the mine target, as illustrated by the large standard deviation of $\rho_{s\lambda}$ measurements for the 16 pixels at the five θ_s. These results support the concept that a good REL calibration target should be spectrally invariant over time, but not necessarily of uniform reflectance. With such heterogeneous targets, it will be critical to have high precision in the geolocation of the target to ensure that the same location is extracted from all images for REL calibration.

3.1.3. Other considerations

It has been emphasized here that a characteristic of an REL calibration target is an invariant BRDF over time. Two surface conditions that can affect BRDF invariance are changes in vegetation biomass (as illustrated in Fig. 2f) and changes in surface soil moisture. The latter issue is the topic of this subsection. Surface soil moisture varies with

3.2. Characterization of REL calibration target

The procedure proposed for characterization of the REL calibration target is based on a methodology originally refined for satellite sensor in-flight calibration at White Sands, NM, by Jackson et al. (1990). The REL procedure requires sets of target $\rho_{s\lambda}$ measured over a variety of θ_s and θ_v. This can be accomplished in a single morning starting near dawn and finishing near solar noon. The two sets of measurements are made with a yoke-based sensor and
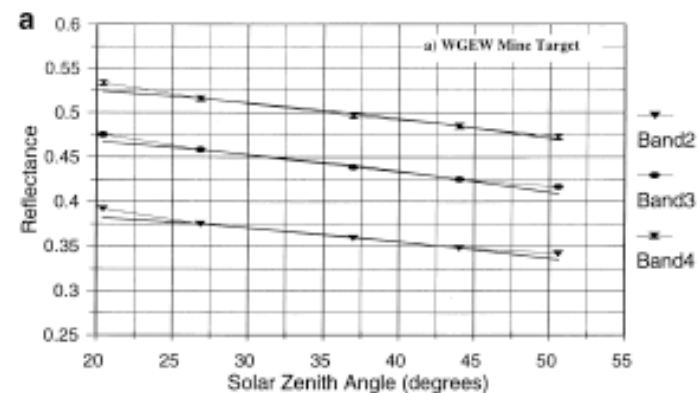
Timing

- ☐ Review phase takes time, be patient

    - ☐ 6-12 months is not unusual

- ☐ Publishing phase also takes time

    - ☐ 3-6 months typical

    - ☐ On-line journals are alternative for "rapid publication"