

# TOP GUIDELINES

## TRANSPARENCY AND OPENNESS PROMOTION

Transparency, open sharing, and reproducibility are core values of science, but not always part of daily practice. Journals, funders, and societies can increase research reproducibility by adopting the TOP Guidelines.

### 8 MODULAR STANDARDS

<b>CITATION STANDARDS</b> Cite shared data to incentivize their publication	<b>DATA TRANSPARENCY</b> Disclose, require, or verify shared data
<b>ANALYTICAL METHODS TRANSPARENCY</b> Disclose, require, or verify shared code	<b>RESEARCH MATERIALS TRANSPARENCY</b> Disclose, require, or verify shared materials
<b>DESIGN AND ANALYSIS TRANSPARENCY</b> Sets standards for research design disclosures	<b>PREREGISTRATION OF STUDIES</b> Specification of study details before data collection
<b>PREREGISTRATION OF ANALYSIS PLANS</b> Specification of analytical details before data collection	<b>REPLICATION</b> Encourages publication of replication studies

**Over 5,000 journals have now signed up to these guidelines.**

PERSPECTIVE

# Reproducible Research in Computational Science

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