Community Call: Software Standards

Rebecca Killick (r.killick@lancs.ac.uk)
rOpenSci Oct 2021
Leading the next generation

- Statistical software production has boomed in recent years
- Users want to know what is “good” statistical software
- We are NOT software developers . . .
- . . . but coding literacy is increasing
- Standards set expectations and keep the community honest
• Editors-in-chief pre-screen all papers and software
• We use a set of standards around usability and convention
• Guidance to authors is:
  • Readable and have comments
  • Where possible, formatted help files and packaged code
  • Where possible, available from standard repositories
  • Where sensible, leverage classes and methods
  • Link to rOpenSci standards, but not mandatory
• After pre-screening the submission is sent to reviewers who have their own standards
Time Series Standards

- Covers both time-domain and frequency-domain software
- Additional constraints for time series data
  - preserving ordering indices
  - missing data handling
  - assumption handling (stationarity)
  - forecasting specifics - including distributions
  - return values - transformations
  - visualisations - frequency axes