

## Creating a culture for open sharing of preprints, posters, and meeting presentations in the Earth and space sciences

\*Brooks Hanson<sup>1</sup>

### 1. American Geophysical Union

Studies of preprints, mostly arxiv.org in physics, have shown that these accelerate science and increase citations of papers posted there. New preprint servers have now emerged across most other disciplines. AGU has helped start a server in the Earth and space sciences, ESSOAr (Earth and space science open archive). ESSOAr includes an advisory board of many other societies including JPGU. One different aspect of ESSOAr is that posters can also be archived. As many as 50,000 posters are presented annually at geoscience conferences, and these represent a large amount of rich content, and effort, that is rarely preserved or credited. In the future, oral presentations may also be archived. Archiving these in ways that can be searched and mined for data would open up a key missing part of our science, provide credit, including for younger scientists who may not have other publications. Fostering use and growth of preprints in the Earth and space sciences will require some cultural changes. Unlike in physics, many journals will not consider or accept papers that have been already posted on preprint servers. Allowing and easing submission to ESSOAr from conferences and greater recognition of the value of preprints will help these cultural changes.

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