Earth and Space Science

INTRODUCTION
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Special Collection:
Ten Year Anniversary of Earth and Space Science

Ten Years of *Earth and Space Science*: Introduction to the Special Collection

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Abstract The journal *Earth and Space Science* (*ESS*) was founded in 2014 to offer the scientific community a new platform for the dissemination of key new data, observations, methods, instruments, and models, presented within the context of their application. Thus, the aim of the journal was (and is) to highlight the complexity and importance of experimental design, methodology, data acquisition and processing, intertwined with data interpretation. Such approach is consistent with the mission of most AGU journals, but the distinctive element for *ESS* is its focus on the concept of the useful impact of publication, progressively replacing that on conventional publication metrics. In this context, the journal has been, since its inception, the preferred home for studies stemming from both global and local geoscience research. This special collection contains 16 papers published in *ESS*, selected by the Editorial Board to highlight the aims, scope and path of evolution and growth of the journal since it inaugural issue, in 2014.

Key Points:

- This is an introductory paper to a special collection commemorating the 10-year anniversary of *Earth and Space Science*
- This collection highlights 16 papers, one from each year the journal has operated
- We hope that the special collection will be inspiring for future authors

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1. Mission and Evolution of the Journal

Over the years, the mission of the journal has been promoted by a stellar line of inspired and dedicated past Editors in Chief: John Orcutt (Founding EiC; 2014–2018), Peter Fox (2019–2021), and Benoit Pirenne (Interim EiC, 2021), with the collaboration of active and energetic Editorial Boards, composed of long serving members who have provided EiCs with corporate memory and advice, not to mention the invaluable "grunt" work required to make the journal function. Since 2014, the Editorial Board has grown from the initial 2 to the current 15 Editors, to address two vital needs: (a) to provide the expertise to handle manuscripts encompassing all the disciplines represented in the American Geophysical Union (AGU); and, (b) to broaden its diversity. I cannot but thank with absolute gratitude the excellent team of Editors who have been a constant source of encouragement and inspiration since I became EiC (2022). They all make my work absolutely enjoyable, and deserve individual thanks (in alphabetical order): David Baratoux, Subrahmanyam Bulusu, Cinzia Cervato, Paolo Diviacco, Alina Donea, Steven J. Fletcher, Helen M. Glaves, Cathleen E. Jones, Gaopeng Lu, Astrid Maute, Franklin P. Mills, Sara C. Pryor, Kristy Tiampo, Zunyi Xie. I also want to thank those Editors who have rotated out of the role: Ilkay Altintas, Andrea Donnellan, Chelle Gentemann, Jonathan H. Jiang, Benoit Pirenne, and Frank Vernon. As of 2023, the journal can also count on a vibrant team of Associate Editors (https://agupubs.onlinelibrary.wiley.com/hub/journal/23335084/editorial-board/associate-editors.html).

Since 2014 the journal has published (at time of this writing) 1,775 papers in a broad range of disciplines, by authors from all over the world. Naturally such an undertaking would not have been possible without the generous work of 4,354 expert peer-reviewers, prompt and precise in their assessments.

To organize and add visibility to the broad range of topics covered in the journal, the current Editorial Board has expanded the description of its aims and scope, and subsets have been recently introduced. The submission website now provides a detailed description of the topics and requirements of the journal, meant to be of guidance

to authors when deciding where to submit their work (https://agupubs.onlinelibrary.wiley.com/hub/journal/23335084/aims-and-scope.html).

Given its aims, *Earth and Space Science* (*ESS*) is the natural home for FAIR (Findable, Accessible, Interoperable, and Reusable) data practices, as these clearly underpin its entire mission. The journal publishes research abiding by the scientific principle of reproducibility through uniform practices of data and software sharing. This fulfills the requirement of transparency and reproducibility of published research. More importantly, from an ethical perspective, FAIR practices advance our concerted effort to increase participation and access to scientific research. The journal is deeply committed to this goal, and is continuing to explore new and innovative ways to further streamline the process of data and method sharing to make them truly universally accessible and useable.

Diversity and inclusion are essential guiding principles for *ESS*, reflected in every step of the publication process. The journal commitment to this goal has furthermore been shown through the publication of papers on this topic, which has also been explicitly included in its "Multidisciplinary" subset.

To celebrate 10 years of *ESS*, the current Editorial Board has selected 16 papers published from 2014 to 2023. Many more could have been selected to showcase the quality and breadth of the work published in the journal. Owing to time and space constraints, we had to decide on a set of criteria, and operated our selection based on: year of publication (we wanted to list at least one paper per each year); topic (to show the breadth of disciplines); impact, broadly defined; and, innovation in publishing.

In this special collection, we are thus reproposing papers covering topics in the fields of atmospheric science (Schoeberls et al., 2014, also the first paper ever published in *ESS*; Emmert et al., 2021; Lhotka & Kyselý, 2022); Earth and planetary surface processes (Mei et al., 2015); models and machine learning applications (Cho et al., 2020; Kellner et al., 2023); ocean science (Roman-Stork et al., 2023; Tozer et al., 2019; Weatherall et al., 2015); planetary science (Bell et al., 2017; Beyer et al., 2018); solid Earth (Rundle et al., 2016; Elkins & Spiegelman, 2021; Iacovino et al., 2021—the last two also pushing the frontiers of innovation in publishing code and notebooks); and space physics (Drob et al., 2015). To highlight the ongoing and growing commitment of our journal to DEIA (diversity, equity, inclusion and accessibility), we included in the collection a seminal paper on the impact of COVID on publications (Wooden & Hanson, 2022).

We hope that the special collection will be inspiring for future authors, providing a general overview of the quality of the work published in the journal, and of the range of topics we cover. We are grateful to everyone who submitted manuscripts to our journal since 2014, and we are looking forward to many more years of publishing excellence and impact of research in geophysics.

Data Availability Statement

Data were not used, nor created for this article.

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