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Dr. Harihar Rajaram
Editor in Chief
Geophysical Research Letters
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Dear Dr. Rajaram,

We wish to submit our article entitled “Quantifying water cover shifts across the globe: following the steps of walking floods” for consideration by *Geophysical Research Letters*. We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

In broadening our knowledge of large-scale flooding dynamics, it is important to consider their spatial variations over time, as they play a significant role in determining the area exposed to flooding and significantly impact ecosystems, including gas exchange rates between the surface and the atmosphere. While some studies have quantified how floods shift in large rivers, there is a notable lack of efforts in exploring beyond lotic systems. To address this gap, we have developed a novel methodology with which this flooding attribute. Our findings demonstrate its ominous capacity to detect known shifts in floodplains as well as in shallow lakes and intensely irrigated landscapes, and the hydrological impact of infrastructure emplacement on the spatial dynamics of floods downstream. In our submitted article, we introduce two metrics based on remotely sensed surface water cover data and demonstrate their potential to improve flood research studies.

We thank you in advance for considering our manuscript,

Sincerely

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