

The Fritz Ackermann Award – Best Paper 2024

April 2025

The publisher of the *ISPRS Open Journal of Photogrammetry and Remote Sensing*, Elsevier B.V., and Trimble, Inc., have recently agreed to establish the ISPRS Fritz Ackermann Award to encourage and stimulate submission of high-quality scientific papers by individual authors or groups to the *ISPRS Open Journal of Photogrammetry and Remote Sensing*, to promote and advertise the Journal, and to honour the outstanding contributions of Prof.Dr.-Ing. Friedrich (Fritz) Ackermann to research and development in photogrammetry and remote sensing.

The Award is presented to authors of the best paper published exclusively in the ISPRS Open Journal during the four-year period from January of a Congress year, to December of the year prior to the next Congress. As an exception, the period for the first Award will cover the five-year period starting in 2021. The Award consists of a certificate and a grant of €10,000. A five-member Jury, comprising experts of high scientific standing, whose expertise covers the main topics included in the scope of the Journal, evaluates the papers. For each year of the evaluation period, the best paper is selected, and from these papers, the one to receive the ISPRS Fritz Ackermann Award will be selected. The first ISPRS Fritz Ackermann will be presented at the 25th ISPRS Congress in Toronto in 2026.

The Jury appointed by the ISPRS Council evaluated the papers published in 2024 and announces its decision for the Best Paper. The winner of the 2024 Best Paper Award is:

"Airborne sensor fusion: Expected accuracy and behavior of a concurrent adjustment"

by Kyriaki Mouzakidou¹, Aurélien Brun¹, Davide Antonio Cucci², and Jan Skaloud¹

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Jury's rationale for the paper selection

In their article, the authors address the highly relevant problem of photogrammetry with consumer-grade drones and navigation sensors. More in detail, the authors thoroughly investigate tightly coupled sensor orientation with spatial constraints in a common adjustment. The results show significant improvement in the attitude accuracy of the derived trajectory while reducing the dispersion of geo-referencing errors. Boresight estimation can be stabilized by using image constraints. The ablation study demonstrates the influence of different types of spatial constraints and flight geometries. The work potentially speaks to quite a large audience, while still being non-trivial.

On behalf of the ISPRS and the ISPRS Fritz Ackermann Jury, I would like to congratulate the authors for this distinction and thank them for their contribution. I would also like to thank the sponsors of the Award, and the Jury members for their thorough evaluations.

George Vosselman

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