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## Recent Advances in X-Ray Sensing and Imaging

Guest Editor:

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Deadline for manuscript submissions:

**closed (20 November 2025)**

### Message from the Guest Editor

Dear Colleagues,

The purpose of this Special Issue is to showcase the latest developments of X-ray sensing and imaging technologies and explore their future trajectories. We aim to bring together a diverse range of research, covering (but not limited to) the following topics:

1. Innovations in photon-counting X-ray detectors and their applications.
2. Advances in high-spatial-resolution detectors using direct conversion methods.
3. The role of these technologies in enhancing spectral imaging applications.
4. The integration and impact of these detectors in ultra-high-resolution CT.
5. Emerging applications in X-ray phase-contrast imaging and X-ray coherent scatter imaging.
6. Clinical and industrial case studies demonstrating the practical applications of these advanced detectors.
7. Quantitative data (e.g., improved resolution, reduced radiation dose) illustrating the impact of these advancements.

We invite researchers and practitioners from academia and industry to contribute their latest findings, reviews, and perspectives on these exciting developments.

Dr. Bahaa Ghamraoui

*Guest Editor*



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**Special** Issue



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## Message from the Editor-in-Chief

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