

THE NEXT FRONTIERS IN X-RAY IMAGING

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Sala Cappella, ex Ospedale Militare

Via Fabio Severo 40, Trieste and on Zoom

X-rays have been used to reveal the inside of opaque objects since their discovery over 125 years ago. In the last few decades, many advanced imaging modalities have been introduced to push the limits of what can be seen with X-rays. This presentation will describe some of the new methods that are currently changing the X-ray imaging landscape, in particular ptychography and speckle-

based imaging. These methods share the characteristic of dealing with more "messy" experimental conditions thanks to advanced image reconstruction algorithms. Potential key applications from biological, medical and materials sciences will be showcased.