



X-Ray Eyes: Seeing Through Walls Using Radar

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This image represents current research into ground-based applications of radar imaging in a through-wall context. Utilising different measurement geometries and signal processing, the aim is to gather and disseminate low-frequency synthetic aperture radar data to identify building structure and content.

This image shows volumetric synthetic aperture radar data gathered in a multistatic modality, i.e. where there are two independent receiving antennas, both on the far side of the wall. This is superimposed onto a photograph of the same area, showing good agreement between the visual and radar images. For clarity, the point cloud has been segmented into different regions, each given a separate colour. Red represents the two metal barrels, blue shows the desk area whilst green represents the wall signature.