

**Internal Webinar**  
**RPC detectors for imaging**  
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Resistive Plate Chambers (RPCs) are gaseous detectors widely recognised for their excellent time resolution and high spatial precision, making them indispensable in modern high-energy physics experiments. This talk presents recent developments in RPC technology and highlights their applications in advanced imaging and particle detection across several major international collaborations. Particular emphasis is placed on key operational milestones, including the successful deployment and performance of RPCs in the mini-ICAL detector for the India-based Neutrino Observatory (INO). In addition, the presentation discusses ongoing efforts to address environmental and sustainability challenges associated with RPC operation, with a focus on initiatives within the ECOGas@GIF++ collaboration.



***Friday, Jan 23<sup>rd</sup> 2026***  
***11:30 Hrs***