

# 12th International Workshop on Thin Films and New Ideas for Pushing the Limits of RF Superconductivity



**Monday, 21 September 2026 - Friday, 25 September 2026**

**Chester, United Kingdom**

## Scientific Programme

## **Setting the Horizon: Welcome Address, Global Perspectives & Technical Roadmaps**

## **Pushing SRF Thin Films Limits: Theoretical Advances, Deposition Modeling & DFT**

(HiPIMS, Arc Deposition, ECR plasma deposition, CVD...)

## **Latest Advances in Nb Thin Film Technology**

## **Conventional PVD, energetic condensation from highly ionized plasmas**

(HiPIMS, Arc Deposition, ECR plasma deposition, CVD...)

## **Nb<sub>3</sub>Sn Technology: Recent Technical Advances & Scaling Horizons**

## **Beyond Nb & Nb<sub>3</sub>Sn: Alternate materials, multilayer SIS structures and functional layers**

(B1 compounds (NbN, NbTiN...), A15 materials other than Nb<sub>3</sub>Sn (V<sub>3</sub>Si, Nb<sub>3</sub>Al ...), MgB<sub>2</sub> and other high-T<sub>c</sub> superconductors (oxyphnictides, FeSe monolayer...), SIS multilayer, cap, barrier layers and nano-engineered structures)

## **Tailored Substrates for Advanced Film Growth**

(Surface cleaning, atmospheric plasmas; cavity substrate fabrication (electroplating, seamless cavities, 3D-manufacturing...))

## **Emerging Frontlines in Characterization Methods: Advanced Imaging & Novel Probes**

(ptychography (TEM), ...)

## **Emerging Frontiers & Synergies in SRF Thin Films: From Quantum Sensing to AI-Driven Materials**

(including detector cavities and quantum and superconducting logic & sensing applications,  
perspectives for AI enabled material development )