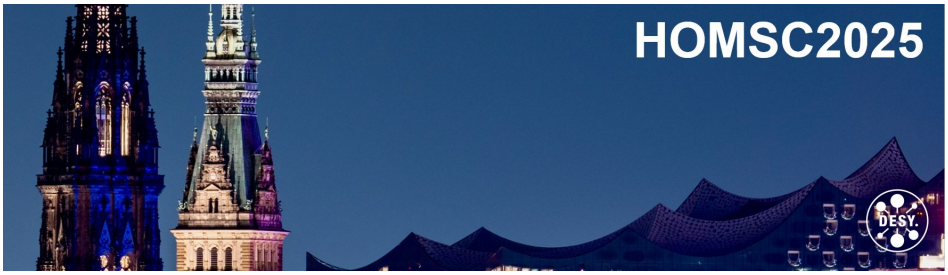

Contribution ID: **29** Type: **Oral contribution**

Status of the ECHO Code

Tuesday 7 October 2025 09:30 (30 minutes)

The ECHO code family provides advanced numerical tools for calculating wake fields and impedances in accelerator components. In recent years, the codes have been extended to cover a wide range of geometries: rotationally symmetric (ECHOz1, ECHOz2), rectangular and 2D structures (ECHO2D), fully 3D models (ECHO3D), and anisotropic waveguides (ECHO1D). Key implementations include low-dispersive and conformal schemes, moving mesh approaches, and indirect integration techniques to ensure accuracy and efficiency. Recent applications demonstrate reliable modeling of complex accelerator components. This talk presents the current status, capabilities, and ongoing developments of the ECHO codes.

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Session Classification: Numerical Simulations for SRF Cavities

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