

**HOM Damping in SOLEIL Superconducting Cavity**, A. MOSNIER, SOLEIL (France); S. CHEL, X. HANUS, CEA/DAPNIA (France); J. JACOB, O. NAUMANN, ESRF (France); F. ORSINI, SOLEIL (France) - Coupled bunch instabilities are one of the primary performance limitation in high intensity storage rings. For the SOLEIL light source, it was decided to develop a two-cavity superconducting system, able to provide the necessary beam power and RF voltage, while strongly damping the parasitic modes by means of two pairs (longitudinal and transverse) of HOM couplers. The overall cavity and coupler arrangement was designed by means of frequency and time domain codes and the final optimization was achieved through low power measurements on copper prototypes.