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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Electromagnetic Eigenmode Simulations of the Third Harmonic Cavity -- Measurements of HOM Spectra -- Analysis Methods for Beam Position Extraction from HOM -- Dependencies of HOM on Transverse Beam Offsets -- HOM-Based Beam Position Diagnostics.
Sommario/riassunto	This work employs self-excited wakefields as a diagnostic to remotely determine the beam position within a superconducting cavity and chains thereof. Several numerical techniques are delineated in order to ascertain the most appropriate technique in terms of reliability and accuracy. The methodology is carefully explained making the presentation pedagogically appropriate to students new to the field as well as researchers familiar with this topic. Pei Zhang's achievements will serve as a basis for the development of similar monitors at various other facilities around the world.