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RD towards a compact all-silicon tracker for the future Electron-Ion Collider ERNST SICHTERMANN, Lawrence Berkeley National Laboratory — The future U.S.-based Electron-Ion Collider will offer unique opportunities to peer deeply into protons, neutrons, and nuclei owing to its capabilities to collide high-energy polarized ectron and ion beams at high luminosity and to observe the collisions with advanced detectors. I will discuss a design path towards a compact, low-material, large acceptance, and high-performance tracking and vertexing detector subsystem for charged particles based on monolithic active pixel sensor technology and associated R&D.

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