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Cool Copper Collider Design and Plans

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C3 – the Cool Copper Collider – is a concept for a $e+e-$ Higgs factory at 250 GeV center of mass, with a potential upgrade to 550 GeV in the same footprint. C3 leverages novel advancements in high-gradient cryogenic copper accelerator structures which operate with high rf to beam efficiency. The C3 main linac requires significant R&D effort for the rf and cryogenic systems, beam delivery, and beam alignment. The C3 demonstration plan is aimed at mitigating risks associated with technical, schedule, and cost with the goal of commissioning a full high gradient cryomodule with beam loading. This talk will cover recent rf accelerator R&D efforts in terms of distributed coupling structures and cryogenic structure design, as well as the status of high gradient tests, cryomodule design and beam dynamics.

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