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Developing the next generation of IceCube: IceCube-Gen2

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Building on the success of IceCube, and the upcoming deployment of the IceCube Upgrade, the IceCube collaboration is planning for a next phase of upgrade of the detector, IceCube-Gen2. Over the past decade, the IceCube-Gen2 Collaboration has been designing a detector that would provide an order of magnitude greater sensitivity to high- and ultra-high-energy neutrinos, increasing the volume of instrumented ice from 1km3 to 8km3 and adding a large radio component covering TeV to EeV energies. This effort has culminated in a comprehensive three volume Technical Design Report. To further support this expansion, IceCube-Gen2 is planning a comprehensive design phase over the next three years to finalize the detector design, geometries, simulated sensitivities, and logistics needs. In this talk, we will present the motivation, current status, and plans for the development of the IceCube-Gen2 detector.

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