Enhanced energy reach of IceCube

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To improve IceCube's sensitivity to high-energy neutrinos, the spacing between strings may be increased in the last row deployed in the detector's final phase of construction. We consider several detector geometry possibilities, and demonstrate a significant increase in the expected number of events at 0.5 to 500 PeV, with a similar improvement for the signal expectation from GZK neutrinos. Advantages for simultaneous detection of neutrinos by acoustic and radio methods are also discussed.