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## Realizing Cosmic Explorer 2 with LIGO A+ or Voyager Technology

*Tuesday, 18 May 2021 06:00 (20 minutes)*

Cosmic Explorer is a 40 km long third generation gravitational wave detector envisaged to be realized in two stages. The first stage (CE1) will use the room temperature fused silica and 1  $\mu\text{m}$  laser technology of LIGO A+. The second stage (CE2) will either continue to use this technology or will use the cryogenic silicon and 2  $\mu\text{m}$  laser technology of LIGO Voyager. In this talk, we will compare the fundamental noise sources of these two technologies and show that both realizations of CE2 can reach similar strain sensitivities.

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