Contribution ID: 30

Two-coloured laser light to control the Einstein Telescope

Tuesday, 24 October 2023 13:30 (5 minutes)

The Einstein Telescope uses laser light to precisely monitor the distance between two freely hanging mirrors placed several kilometres apart, to search for traces of gravitational waves that are passing by. The mirrors are made from large silicon crystals and require a specific laser colour for best sensitivity. This research shows how combining this laser light with another laser colour can control the mirrors to an extremely stable position, letting the Einstein Telescope listen to the faintest waves

Primary authors: STEINLECHNER, Sebastian (Maastricht University & Nikhef); SCHOON, Tobias; GUO, Yuefan

Session Classification: Posters

Track Classification: Instrumentation and R&D