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Mitigation of the angular noise sources in Advanced LIGO MARIE KASPRZACK, Louisiana State Univ - Baton Rouge — The remarkable sensitivities reached by the LIGO detectors during their successful second observing run are now under improvement to prepare for the third observing run starting this year. One of the main limits of the sensitivity in the low-frequency part of the detection bandwidth is the angular motion of the core optics. The cavities are actively aligned to maintain the angular motion at the design requirements. In this talk I will discuss the angular noise sources that affected the detectors during the second observing run and their mitigation. I will also present the challenges linked to the foreseen increase of power in the detectors and their effect on the interaction between the longitudinal and angular motions.

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