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Seismic Issues at LIGO Livingston Observatory (LLO) during the LIGO-Virgo 3rd Observing Run (O3) BEVERLY K. BERGER, Stanford University, LIGO SCIENTIFIC COLLABORATION — The Advanced LIGO/Virgo era of discovery would not be possible without effective isolation from seismic disturbances. Yet, such systems are not perfect. Stray light from seismically induced scattering creates noise in the monitored gravitational-wave channel, $h(t)$, that can mimic, distort, or obscure astrophysical signals. External influences at LLO such as storms and logging create time, frequency, and location dependent seismic noise. The identification of various components of the seismic noise and their impact on $h(t)$ will be the focus of this talk. Software tools including the Summary Pages, hVeto, and Lasso can help connect seismic disturbances with anomalies in $h(t)$. The status of understanding and mitigating the seismic disturbances will be discussed.

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