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Sommario/riassunto

"Monitoring Seismic and Acoustic Waves at Sea describes the non-tectonic related seismic signals, show examples of their waveforms, discuss the methodologies allowing to detect and study them, outline their impact and the remaining questions and establish a nomenclature for scientists working on these events, to ease future communications. Studies show examples where NSE's are used for gaining new knowledge in multiple domains of sciences. Volcanic tremors are studied to track the magma movements and used as a successful early warning system to mitigate the volcanic hazard for years. Whale calls recorded on seismic stations are used to track whales and study their habit changes connected to environmental changes. Ambient seismic noise is used to infer the seafloor physical properties. Monochromatic short duration events are suggested to be the expression of fluid migration within the shallow sediments, and they are used for the quantification of local seafloor Methane emission. Case studies show that NSE's allow gaining knowledge in processes involved in climate change. Also, they are used for geo-hazard mitigation. They, therefore, have a huge economic and societal importance."--
