

XVth Quark Confinement and the Hadron Spectrum



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Gravitational Waves from the innermost parts of Core-Collapse Supernovae

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Core-Collapse Supernovae, the explosions of massive stars, are among the several types of gravitational-wave sources yet to be discovered by gravitational wave interferometers. These cataclysmic events may yield insights into the nuclear EoS at multiple times nuclear saturation density. I will review the current advancements in deducing properties of the proto-compact star from gravitational wave spectrograms obtained through Core-Collapse Supernova simulations. Specifically, I want to discuss the excitation of an inner g-mode located in the interior of the proto-compact star. The frequency of this mode falls within the decihertz range and is linked to the speed of sound at approximately four times saturation density.

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