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Effects of higher order modes in gravitational-wave inference of signals from binary neutron star mergers A. B. YELIKAR, A. Z. JAN, Center for Computational Relativity and Gravitation, Rochester Institute of Technology, J. LANGE, Institute of Computational and Experimental Research in Mathematics, Brown University, R. O'SHAUGHNESSY, Center for Computational Relativity and Gravitation, Rochester Institute of Technology — When estimating the properties of binary neutron stars via gravitational wave radiation, it is vital to use the most accurate and physically-motivated models available. Even with the most sophisticated models, deviations can introduce bias in the parameter estimation between different models. In this talk, I present work that investigates systematic differences between tidal waveform models that include higher-order modes. This work quantifies the systematics between different models and between the inclusion and omission of higher-order modes. We also describe the performance of efforts to mitigate these biases by marginalizing over different waveform families

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