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Computational approaches in gravitational wave data analysis

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The potential for gravitational wave observations to revolutionize our understanding of the universe is made possible in part by innovative data analysis strategies.This talk focuses on novel computational approaches used to squeeze every last drop of information out of the coming flood of data. Topics include mining through data to identify candidate signals, source characterization using optimization algorithms and Bayesian inference, and advances in modeling gravitational wave signals and detector noise.

[1]On behalf of the LIGO Scientific Collaboration