

Abstract Submitted
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Validating Gravitational Wave Events DEREK DAVIS, California Institute of Technology, LIGO SCIENTIFIC COLLABORATION COLLABORATION — In the current era of gravitational-wave astronomy, gravitational-wave detection is becoming a common occurrence. As the rate of detectable events grows, the process in which signals are distinguished from instrumental artifacts that pollute LIGO data has remained an essential step in gravitational-wave detection. In this talk I will show how analyses of gravitational waves from compact binaries are impacted by the characteristics of these instrumental artifacts. I will outline methods to better distinguish gravitational-wave events from common transients in LIGO data and to mitigate their impact on analyses of detected signals. I will explain how these procedures have been applied to validate recently announced gravitational-wave events.

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