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**PyCBC: A Toolkit for Advanced-Detector Era Gravitational Wave Data Analysis** ANDREW MILLER, Abilene Christian University, Albert Einstein Institute, DUNCAN BROWN, Syracuse University, TITO DAL CANTON, BADRI KRISHNAN, Albert Einstein Institute, ALEX NITZ, Syracuse University, JOSH WILLIS, Abilene Christian University, Albert Einstein Institute — Gravitational wave detections are an important step into the future of astrophysics because they will be able to provide a new look at our universe, which will complement our traditional electromagnetic observations. Inspiring compact binary systems are an important source for potential detections. As the sensitivity of ground-based interferometers is improved, searches for gravitational waves from these sources become more computationally intensive; more data-analysis tools are required to make these searches as efficient as possible. PyCBC is one such software toolkit that will provide a high-level framework for analysis, including the ability to transparently use GPU computing.

Andrew Miller  
Abilene Christian University

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