

APR20-2020-000799

Abstract for an Invited Paper
for the APR20 Meeting of
the American Physical Society

Data Analysis for Cosmic Explorer¹

DUNCAN BROWN, Syracuse University

Data-analysis software is an integral enabler of observation, experiment, theory, and computation and a primary modality for realizing the discoveries and innovations of astrophysics. I will discuss how data-analysis software enables gravitational-wave astronomy, the free and open source toolkit PyCBC for gravitational-wave astrophysics, and the challenges that the community will face in realizing data analysis for Cosmic Explorer—the proposed U.S. contribution to the third-generation gravitational-wave detector network.

¹National Science Foundation Awards PHY-1707954 and PHY-1836702