

Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Burst Searches for Compact Binary Coalescences¹ SERGEY KLIMENKO, University of Florida, LIGO COLLABORATION — Compact Binary coalescences (CBC) are the most promising sources of gravitational waves (GW) for the first detection with advanced GW detectors. Being the most efficient GW emitters among anticipated GW sources, they are also well understood theoretically in the framework of General Relativity. In the talk I'll discuss different flavors of CBC sources and two types of search methods employed in the GW data analysis: template and excess power. While template methods are the most optimal for CBC sources, I will concentrate on the excess power methods, which are typical for searches of generic GW transients (bursts). How to use burst searches for CBC sources? Why would we do this? What can we learn about CBC sources from a burst search? - these and other questions will be discussed in the talk.

¹Supported by NSF grant PHY-1205512

Sergey Klimenko
University of Florida

Date submitted: 08 Jan 2014

Electronic form version 1.4