

Computational challenges of gravitational-wave searches

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Last year we have witnessed the historical announcements of first direct detections of gravitational waves. As the LIGO and Virgo detectors continue to improve their sensitivity and increase their observations' time, we will have more and more detection candidates that will have to be followed up in order to confirm them and estimate their astrophysical parameters. I will discuss the most pertinent problems related to searches of gravitational-waves from various types of sources, as well as the solutions related to parallelization using hardware accelerators.