

Fast identification of GW signals at the future Einstein Telescope

The Einstein Telescope, the proposed next-generation European ground-based GW observatory, will dramatically increase our capability to detect GW signals. The number of detections is expected to grow from the current $O(1/\text{week})$ to $O(1/\text{minute})$, which will have a revolutionary impact on both our ability to study the dark universe and on multi-messenger science. In order to fully benefit from this potential, it is important to quickly detect GW signals, with sufficient fidelity to inform the wider multi-messenger community. Such an objective necessitates the development of new algorithms for fast signal identification; this contribution will discuss our efforts towards addressing this challenge.

Primary authors: SCHÄRER, Noé; BAIMUKHAMETOVA, Sarah (Universite de Geneve (CH)); SCHRAMM, Steven (Universite de Geneve (CH))

Presenters: SCHÄRER, Noé; BAIMUKHAMETOVA, Sarah (Universite de Geneve (CH))