

Machine learning implementation in the multi-messenger search of gravitational wave sources

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Currently, the difficulty of multi-messenger search of gravitational waves (GWs) in optical is the large localization of GWs, which would result in a huge amount of candidates. Meanwhile, the crucial point for such optical counterpart (r-process kilonova) search is the cadence, since the magnitude of kilonova would decrease very fast. Therefore, some tools that can assist in automatic transient candidates evaluation is needed for such real-time astronomical search. In my talk, I will describe a machine learning tool, for rapid and efficient transient candidate selection by exploiting the differencing images.

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