New noise reduction method
for Ringdown signal search in TAMA300

D. Tatsumi, Y. Tsunesada and TAMA collaboration

Abstract:

We are searching for GW ringdown signals from BH formation by using TAMA300 data.
Because ringdown signals are similar to short burst signals, large amount of fake events are triggered by matched filtering. So we study on new method to reduce such fake events. In conventional method, only the best matched template is focused on. Our method use additional information from other templates. We focus on area size of 70% contour around the best matched one in template phase space. More details are presented by our poster.

In conventional analysis,
We use only information of the best template.

The best template is defined as
that of maximum SNR Peak

A waveform is characterized by central
frequency and decay time of the best template.