

## TAMA-ROG agreement

The TAMA group (Japan) and the ROG group (Italy) share the joint goals of observing gravitational radiation and of using gravitational radiation as an astrophysical probe. This agreement is intended to establish and define the exchange of data collected by the TAMA interferometric detector and the ROG bar detectors Explorer and Nautilus in the year 2001, when these detectors had simultaneous periods of observation.

The goal of this data exchange is to search for coincidences due to transient gravitational wave signals with components at kHz frequency, such as those predicted from different kind of sources involving compact objects, like stellar gravitational collapses and the last stable orbits of inspiraling neutron stars or black holes binary system, its merging, and its final ringdown.

The following sets out the principles of the agreement. The details will be defined and updated according to experience.

### 1- Technical points:

The data will consist of *candidate events* and information on the start run and stop run times.

Here, the candidate events are specified as burst gravitational wave candidates and inspiraling gravitational wave candidates that derived from TAMA300 data analysis, and burst gravitational event candidates that derived from ROG data analysis. According to the progress of the analysis, we will be able to revise the definition of the events.

For each operating detector the individual group will select the candidate events. The technique to produce the events will be chosen by the individual groups on the basis of the type of search (short burst, chirp, or others signals), of their experience and the type of noise of their detector.

The minimum information about each event and format of the data will be determined by actual working persons. The exchange data must be enough to extract a physical result for coincidence event search.

For example;

- Time of arrival
- Time uncertainty
- Duration
- Amplitude or significance of the events as Signal to Noise Ratio

Additional fields, giving further information on candidate events, may be provided at the individual groups discretion.

This agreement can be extended in future to the exchange of raw or filtered sampled data, as well as to the exchange of new data sets.

## 2. Policy point

Any kind of publication arising from the analysis of the exchanged data, as well as any presentation at conferences, is subjected to the prior formal approval of both spokespersons of the TAMA and ROG groups.

Both spokespersons nominate a few actual working persons from each group. The members will work together not only for the adjustment of exchange data format, but also about the evaluation of the combined results.

Approved:



Yoshihide Kozai  
TAMA Principal Investigator



Eugenio Coccia  
ROG Spokesperson

Date 8/14/2003

Date 7/8/2003