

Seminarium Astrofizyczne  
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Hoża 69; pawilon; sala 22

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**GW170817: first binary neutron star merger detected by the LIGO-Virgo network**

I will report on a recent breakthrough, historically-first observation of gravitational waves from a merger of neutron stars registered by the LIGO-Virgo network, and related wide-spectrum observations in electromagnetic waves range of resulting short gamma ray burst, X-ray afterglow, optical kilonova etc. These joint observations constitute a beginning of the multi-messenger astronomy. Results derived from this single observations include, among others, the first "standard siren" measurement of the Hubble constant and the expansion rate of the Universe independent of traditional distance ladders, constraints on the equation of state of dense matter and measurement of the speed of gravitational waves.

Serdecznie zapraszam,  
Agnieszka Majczyna