

## VII Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics



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### **OMAR LÓPEZ-CRUZ: Optical Follow-up of Gravitational Wave Sources**

*Tuesday, 18 February 2020 12:30 (1 hour)*

Detecting the electromagnetic (EM) counterpart of gravitational waves (GW) sources gives us with a wealth of information to understand the properties of the GW precursors. The fusion of neutron stars (NS) binaries has been identified as sources of GW. NS-NS fusions are also strong sources of EM radiation, they are called kilonovae. The light produced by kilonovae is mostly red, due to the high opacity of f-shell lanthanide-group elements, and broad spectroscopic features, resulting from the high velocities and many atomic transitions of the heavy r-process elements can be seen. Optical observations also provide information about outflows. In this talk I review what we have learned about the GW170817 event. I also describe the follow-up program of LIGO-VIRGO events using optical telescopes in Mexico, Spain, Chile, Argentina and United States.

**Session Classification:** PLENARY TALKS

**Track Classification:** SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES