### BOSTON UNIVERSITY

# Astrophysics Seminar Tuesday, February 16, 2016

#### **3:15 pm** Refreshments CAS Room 500

#### **3:30 pm** Seminar CAS Room 502

#### Next Week Joint with Space Physics

- Yukitoshi Nishimura UCLA
- Solar windmagnetosphereionosphere coupling through auroral observations



http://www.bu.edu/iar/seminars/ current-seminars/

# Radio Supernovae in the local Universe

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## Abstract:

Rapidly expanding supernova shock wave races ahead of the radioactive ejecta and emits synchrotron radiation predominantly in radio waves. The radio emission naturally carries the stamp of the environment that has been sculpted by the progenitor through winds, eruptions, binary interactions etc. The supernova shock wave that is ploughing through this environment thus traces the final centuries in the life of the progenitor that are otherwise inaccessible to observations or current theories.

I will provide an overview of the properties of radio supernovae. I will then discuss some recent results that shed light on the properties of the SN progenitors, their final few centuries, relativistic SNe and future opportunities to explore fundamental physics with them.



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