

**INT 12-2A, Core-Collapse Supernovae: Models and Observable Signals  
Week 4 (7/16 – 7/20/2012)**

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**Workshop on  
Probing the Supernova Mechanism by Observations**

All talks are in room C520. A total of one hour is allotted for each talk. The speaker has 30-45 minutes to present, and the rest is intended for discussion.

**Monday 7/16**

8:00 am - Registration in room C411

9:00 am - Schuyler Van Dyk, Direct Identification of Core-Collapse Supernova Progenitors

10:00 am - Ken Nomoto, Progenitor's evolution and explosion of Type IIb supernova 2011dh in M51

11:00 am - Coffee

11:30 am - Zachary Jennings, Core-Collapse Supernova Progenitors from Stellar Population synthesis

12:30 pm - Lunch

3:00 pm - Dave Arnett, TBA

4:00 pm - Tea Time (and Coffee)

4:30 pm - Elena Pian, State of the art of GRB-Supernova connection observations

**Tuesday 7/17**

9:00 am - Robert Fesen, Cas A: A Detailed Look at the Kinematics and Structure of a SN IIb Explosion

10:00 am - Dan Milisavljevic, Unraveling the Explosion Geometries of Core-Collapse Supernovae From Their Late-time Optical Emissions

11:00 am - Coffee

11:30 am - Daniel Patnaude, What Do X-ray Observations of Supernova Remnants Tell Us About Supernovae and Their Progenitors

12:30 pm - Lunch

3:00 pm - Yong-Zhong Qian, Neutrinos, Nucleosynthesis, and Core-Collapse Supernovae

4:00 pm - Tea Time (and Coffee)

4:30 pm - Gail McLaughlin, Neutrino Flavor Transformation in Supernovae and Accretion Disks: Implications for Nucleosynthesis

### **Wednesday 7/18**

9:00 am - Christian Ott, Studying Core-Collapse Supernova Physics with Gravitational Waves

10:00 am - Kei Kotake, Brainstorming on core-collapse supernova theory with some perspectives toward multi-messenger astronomy

11:00 am - Coffee

11:30 am - Ernazar Abdikamalov, New approaches to multi-dimensional radiation transport

12:30 pm - Lunch

3:00 pm - Annap Wongwathanarat, Neutrino and GW signals from 3D core-collapse simulations

4:00 pm - Tea Time (and Coffee)

4:30 pm - Juergen Schaffner-Bielich, Signals from the QCD Phase Transition in Compact Stars

7:00 pm - Workshop Dinner at Bombay Grill

## **Thursday 7/19**

9:00 am - H.-Thomas Janka, Exploring the progenitor-remnant-explosion connection by neutrino- driven explosion models Structure of a SN IIb Explosion

10:00 am - Paolo Mazzali, SNe Ib/c with and without Gamma-ray Bursts

11:00 am - Coffee

11:30 am - Masaomi Tanaka, 3D Geometry of Supernovae: Spectropolarimetric Observations

12:30 pm - Lunch

3:00 pm - Stanley Yen, The HALO Supernova Neutrino detector

4:00 pm - Tea Time (and Coffee)

4:30 pm - David Cline, Study of Flavor Neutrino Swap with the 10KT LBNL Liquid Argon Detector

## **Friday 7/20**

9:00 am - Cecilia Lunardini, Diffuse supernova neutrino background supernova matter

10:00 am - Benedikt Riedel, Supernova Neutrino Detection with IceCube - Overview and Outlook

11:00 am - Coffee

11:30 am - Tina Lund, Neutrino flavor evolution through turbulent

12:30 pm - Lunch

3:00 pm - Ronald Bruijn, A novel method for supernova detection in IceCube and beyond

4:00 pm - Tea Time (and Coffee)

4:30 pm - Closing Remarks