

Astrophysical Transients: Multi-messenger Probes of Nuclear Physics

Week 4: Microphysical inputs (equation of state, rates, opacities) to macroscopic models

August 1 – 5, 2011

Monday, August 1, 2011

Room C421, Physics and Astronomy Tower

- **10:30~ Andrew Steiner, INT**
"Determining the Equation of State of Dense Matter from Neutron Star Mass and Radius Determinations"

Room A114, Physics and Astronomy Auditorium

- **3:00 ~ Joe Carlson, LANL**
"Homogeneous and Inhomogeneous Neutron Matter"
- **3:30 ~ Kai Hebeler, Ohio State Univ**
"Chiral three-body forces and neutron-rich matter"
- **4:00 ~ Hans-Josef Schulze, INFN Catania**
"The Maximum Mass Problem"-

Tuesday, August 2, 2011

Room C421, Physics and Astronomy Tower

- **10:30 ~ Ray Sawyer, UC Santa Barbara**
"Plasma Corrections to Rates: A More Serious Issue Than it May Seem"
- **11:30 ~ Armen Sedrakian, J. W. Goethe Univ**
"Color Superconducting Compact Stars: Structure, Cooling and Gravitational Radiation"

Room A114, Physics and Astronomy Auditorium

- **3:00 ~ Madappa Prakash, Ohio University**
Discussion
- **3:30 ~ Andrew Steiner, INT, and Christian Ott, Caltech**
Discussion

Wednesday, August 3, 2011

Room C421, Physics and Astronomy Tower

- **10:30 ~ Vincenzo Cirigliano, LANL**
"A Low-energy Effective Theory of the Neutron Star Crust"
- **11:30 ~ Joseph Hughto, Indiana University**
"Structure and Shear Modulus of the Neutron Star Crust"

Room A114, Physics and Astronomy Auditorium

- **3:00 ~ André da Silva Schneider, Indiana Univ**
"Molecular Dynamics Simulations of the Neutron Star Crust: Freezing and Chemical Separation"
- **3:30~ Rishi Sharma, TRIUMF**
"Electron Screening and Damping in Magnetar Crusts"

Thursday, August 4, 2011

Room C421, Physics and Astronomy Tower

- **10:30 ~ Fiorella Burgio, INFN Sezione di Catania**
"Oscillation Frequencies of Hot and Young Neutron Stars"

Room A114, Physics/Astronomy Auditorium

- **3:00 ~ Evan O'Connor, Caltech**
"The Role of Collective Neutrino Flavor Oscillations in Core-Collapse Supernova Shock Revival"

Friday, August 5, 2011

No talks

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|-----------------------|----------------------------------|--|----------|-----------|--------|
| Nils Andersson | Univ of Southampton | na@maths.soton.ac.uk | 7/24-8/4 | C431 | 5-3719 |
| Almudena Arcones | Basel Univ | a.arcones@unibas.ch | 7/24-8/6 | C424 | 5-9827 |
| Edward Brown | Michigan State Univ | ebrown@pa.msu.edu | 7/17-8/6 | C411A | 5-3606 |
| Fiorella Burgio | INFN Sezione di Catania | fiorella.burgio@ct.infn.it | 7/31-8/7 | C420 | 5-9781 |
| Joseph Carlson | LANL | carlson@lanl.gov | 7/31-8/5 | C420 | 5-9780 |
| Vincenzo Cirigliano | LANL | cirigliano@lanl.gov | 7/29-8/7 | B474 | 5-9774 |
| C. Constantinou | SUNY at Stony Brook | constant@grad.physics.sunysb.edu | 7/31-8/6 | No office | |
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| Charles Horowitz | Indiana Univ | horowit@indiana.edu | 7/16-8/6 | B449 | 5-9773 |
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| James Lattimer | SUNY at Stony Brook | LATTIMER@astro.SUNYSB.EDU | 7/10-8/5 | C438 | 5-9830 |
| Bennett Link | Montana State Univ | link@physics.montana.edu | 7/9-8/6 | C411A | 5-3633 |
| Simin Mahmoodifar | Washington Univ in St Louis | smahmoodifar@wustl.edu | 7/10-8/6 | No office | |
| Paolo Mazzali | Max-Planck Inst for Astrophysics | mazzali@mpa-garching.mpg.de | 7/10-8/5 | C423 | 5-3967 |
| Gail McLaughlin | North Carolina State Univ | gail_mclaughlin@ncsu.edu | 7/24-8/5 | C437 | 5-3620 |
| Evan O'Connor | Caltech | evanoc@tapir.caltech.edu | 7/31-8/6 | No office | |
| Christian Ott | Caltech | cott@tapir.caltech.edu | 7/24-8/5 | C408 | 5-3969 |
| Elena Pian | Scuola Normale Superiore | elena.pian@sns.it | 7/10-8/5 | C423 | 5-9777 |
| Sergey Postnikov | Instituto de Astronomia | sergey@astroscu.unam.mx | 7/16-8/6 | C437 | 5-3620 |
| Madappa Prakash | Ohio University | prakash@harsha.phy.ohiou.edu | 7/31-8/6 | C438 | 5-9831 |
| Sanjay Reddy | INT | sareddy@uw.edu | Local | C433 | 5-2397 |
| Ray Sawyer | UC Santa Barbara | sawyer@physics.ucsb.edu | 7/30-8/6 | B468 | 5-9723 |
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| Hans-Josef Schulze | INFN Catania | schulze@ct.infn.it | 7/31-8/6 | B468 | 5-9721 |
| Achim Schwenk | TU Darmstadt | schwenk@physik.tu-darmstadt.de | 7/24-8/6 | C422 | 5-9779 |
| Kai Schwenzer | Washington Univ, St Louis | schwenzer@physics.wustl.edu | 7/24-8/6 | No office | |
| Armen Sedrakian | J. W. Goethe Univ | sedrakian@th.physik.uni-frankfurt.de | 7/31-8/6 | B474 | 5-9775 |
| Rishi Sharma | TRIUMF | rishi@triumf.ca | 7/31-8/7 | C433 | 5-2397 |
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| Andrew Steiner | INT | steiner3@uw.edu | local | C431 | 5-3970 |
| Ira Wasserman | Cornell Univ | ira@astro.cornell.edu | 7/17-8/1 | C437 | 5-3620 |

**Please send or bring a .pdf or .ppt of your slide presentation to Janine in C411:
janine@phys.washington.edu. Thank you!**