

Program for  
Atomic Astrophysics with Computational Workshop

Prof. S. N. Nahar  
Dept. of Astronomy  
Ohio State University, USA

October 30, 2017

Session 1 *Plasma, Atomic Structure Atomic Processes*

- 09:30 - 12:00:   i)   Light and Matter, Plasma Sources  
                          ii)   Atomic Structure: Hydrogenic and Non-Hydrogenic Spectra
- 12:00 - 12:15           Tea
- 12:15 - 1330    iii)   Hartree-Fock, Dirac, Breit-Pauli Approximations  
                          iv)   Atomic Process in Plasmas – Radiative Transitions, Electron-Impact Excitation

Session 2 *Computational Workshop*

- 1430 - 1630    i)   Program : SUPERSTRUCTURE

October 31, 2017

Session 3 *Radiative and Collision processes, Computational Workshop*

- 09:30 - 1200    i)   Photoionisation, Electron-ion Recombination, Opacity  
                          ii)   Close Coupling Approximation and R- Matrix Method
- 12:00 to 12:15           Tea
- 12:15 to 1330    iii)   Computational Workshop: R Matrix

Session 4 *Computational Workshop, Exam*

- 1430 – 1630    i)   Computational Workshop: R Matrix  
                          ii)   Review, Exam, Evaluation

November 1, 2017

10:00 to 12:00 Seminar, Certificate Distribution and S. N. Nahar Award 2017 Presentation Ceremony.

Venue       : Ahmad Husain Gallery  
                  Dept. of Physics, R.U.