

Rutgers, The State University of New Jersey
Department of Physics and Astronomy
136 Frelinghuysen Road, Piscataway, New Jersey 08854

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This report covers the period September 1998 to August 1999.

1. PERSONNEL

The members of the astrophysics group at Rutgers University for academic year 1998–1999 were:

Faculty: J. P. Hughes, A. Kosowsky, T. A. Matilsky, D. Merritt, C. Pryor, J. A. Sellwood, T. B. Williams, and H. S. Zepolsky. Charles L. Joseph and Ken-Ichi Nishikawa are research faculty members.

Postdoctoral fellows: Marc Gagne, Percy Gomez, Rob Olling and Monica Valluri

Graduate students: Vincent Jacobs, Andy Mack, Libarid Maljian, Milos Milosavljevic, Mingyan Poon, Cara Rakowski, Arend Sluis and Bingrong Xie. Victor Debattista graduated and took up a postdoctoral position at Basel Observatory.

2. ACTIVITIES

Rutgers University is a partner in the SALT (Southern African Large Telescope) consortium, a group of countries and universities which are jointly constructing a 9-meter optical telescope optimized for spectroscopic work that will closely resemble the Hobby-Eberly Telescope at McDonald Observatory. The consortium includes South Africa and Poland, the universities of Rutgers, Göttingen (Germany), the Board of the HET, and others.

Two group members are individually involved in major space missions. Chuck Joseph is a member of the STIS instrument team for the Hubble Space Telescope, for which he receives GTO time to observe the nuclei of galaxies. Jack Hughes was involved in the development of the new Chandra X-ray Observatory (AXAF) and has GTO time to observe supernova remnants and galaxy clusters. He is also a member of Astro-E Science Working Group.

Rutgers was admitted this year to membership in AURA.

The University hosted the international conference “Galaxy Dynamics – A Rutgers Symposium” held August 8 – 12, 1998, which attracted some 200 participants. The proceedings of the conference are now published as Volume 182 of the ASP Conference Series, edited by D. Merritt, J. A. Sellwood & M. Valluri.

3. RESEARCH PROGRAMS

The research interests of the group at Rutgers encompass both observational and theoretical programs in cosmology,

extragalactic and galactic astronomy. The observational work is both ground based, principally at the National Observatories, and space based, using mainly the Hubble Space Telescope and X-ray satellites. There is also a substantial instrumentation effort. Further details of the research programs of individual group members may be found on our group web site given below.

An up-to-date list of papers submitted, in press, and appeared is available at <http://www.physics.rutgers.edu/ast/RAPs.html>.

4. FACILITIES

At Rutgers, Joseph has a well-equipped laboratory for characterizing optical and ultraviolet astronomical detectors.

A computer controlled 20-inch instructional telescope on the roof of our building is equipped with a CCD camera and fiber-fed CCD spectrograph. This instrument is used for undergraduate and graduate training.

The astronomy group has an increasing number of high performance and image processing computer workstations and has access to many more supported by the Department.

5. GRADUATE PROGRAM

The Graduate Program has separate Physics and Astronomy options with differing course and examination requirements. The graduate curriculum in astronomy offers an introductory course plus separate advanced courses covering the major areas of astronomy. See our Department web site for further information at <http://www.physics.rutgers.edu/>.

Students taking the astronomy option are expected to do research with one of the above-listed faculty members, but research opportunities relating to the interests of other members of the Department, e.g. the early universe, also exist within the physics option.

Eight students have graduated with astronomy related PhD degrees since academic year 1994/95.

6. FURTHER INFORMATION

Further details relating to the facilities and full descriptions of specific research activities at Rutgers can be found on our web page at <http://www.physics.rutgers.edu/ast/group-ast.html>.

J. A. Sellwood

