Circular No. 5255

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SUPERNOVA 1991T IN NGC 4527

K. R. Sivaraman, Indian Institute of Astrophysics, Bangalore, telexes: "SN 1991T was observed by T. P. Prabhu and G. C. Anupama on Apr. 24, 25, and 27 using the 2.3-m telescope of Vainu Bappu Observatory, Kavalur. The wavelength range 450-700 nm was covered at 0.5 nm per pixel. Interstellar Na I D gives a velocity of 1700 km/s for the parent galaxy, and the wavelengths mentioned below are corrected for this velocity. The 500-nm dip was at 495.8 nm on Apr. 24 and began to show structure due to Fe II (42). The Si II absorption feature was at 614.7 nm. Weaker dips were visible at 450.4, 455.4, 466.0, 473.2, 485.4, 514.6, 530.8, and 545.7 nm. All features strengthened with time. Identifying these with Fe II 462.9- and 473.1-nm; S II 481.5-nm; Fe II 492.4-, 501.8-, and 531.6-nm; S II 545.4- and 564.0-nm; and stronger dips with Fe II 516.9-nm and Si II 635.5-nm, we derive a mean expansion velocity of 10 000 +/- 1400 km/s (10 lines) and a median of 9700 +/- 100 km/s (5 lines)."

Visual magnitude estimates (cf. IAUC 5251): Apr. 24.87 UT, 11.5 (P. Schmeer, Bischmisheim, Germany); 25.14, 11.5 (H. Smith, Michigan State University; V + CCD); 26.17, 11.0 (R. Royer, Lakewood, CA); 27.21, 11.3 (Royer); 28.10, 11.3 (G. Lubcke, Middleton, WI); 29.25, 11.3 (Royer); 29.9, 11.7 (M. Villi and G. Cortini, Monte Colombo, Italy).

COORDINATED OBSERVATIONS OF AD LEONIS

J. Bookbinder and S. Saar, Center for Astrophysics, write: "We have organized a major campaign to provide a comprehensive study of the dynamics and energetics of stellar flares by utilizing high-time-resolution spectroscopy and photometry. Observations of AD Leo (R.A. = 10h16m52s.51 +/- 0s.03, Decl. = +20 07'17".2 +/- 0".5, equinox 1950.0, epoch 1991.4) are currently scheduled for May 8 and 9 UT with the Hubble Space Telescope, IUE, ROSAT, GINGA, VLA, and at Arecibo and many other ground-based facilities in the U.S. and Europe. We request additional ground-based spectroscopy and photometry from all interested parties. To standardize comparisons of results from ground-based optical observations, please use the following stars as standards: SAO 81296 = HD 89471 (R.A. = 10h17m09s.6, Decl. = +20 39'21", mv = 8.4), and SAO 81313 = HD 89772 (R.A. = 10h19m11s.5, Decl. = +20 18'23", mv = 8.9). For more details on the planned observing, please contact Bookbinder at telephone 617-495-7058 (e-mail bookbind@cfa.harvard.edu) or Saar at 617-495-7046 (SPAN e-mail 6702::saar)."