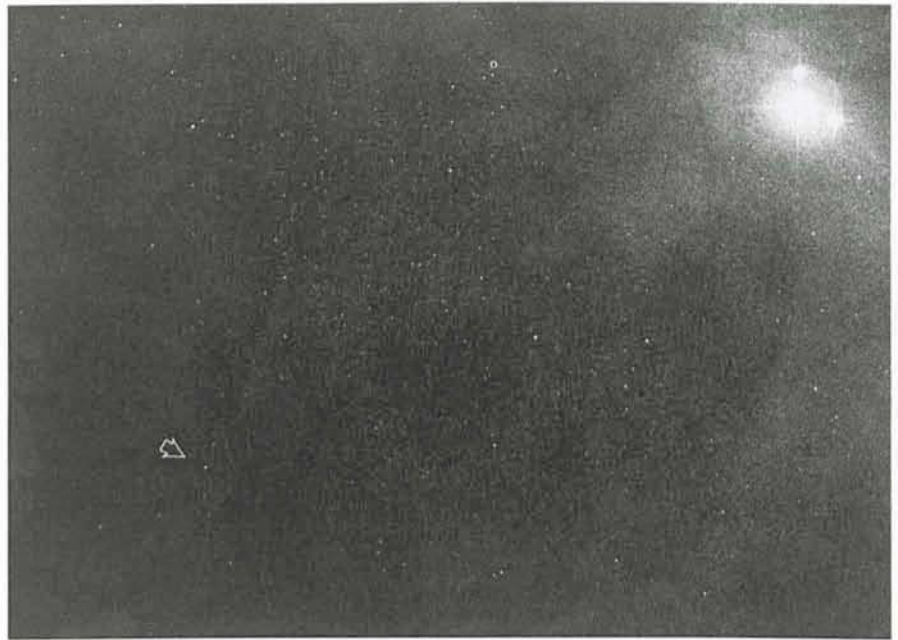


A Visit to Gaspra

This is a ground-based photo of the first minor planet ever to be visited by a spacecraft. On October 29, 1991, the NASA spacecraft Galileo flew past minor planet No. 951 Gaspra on its way to Jupiter where it will arrive in December 1995. The distance to Gaspra from the Earth was 410 million km at the time of the fly-by. Although Galileo's high-gain antenna has not yet been unfolded and could therefore not be used, JPL engineers succeeded in getting a 300-line image via the low-gain antenna; the others will be sent when Galileo is again near the Earth. The first image showed the irregular form of Gaspra and several craters on its surface with a resolution of about 130 metres. The diameter was measured as 16 kilometres.

Gaspra was discovered on July 30, 1916 at the Simeis Observatory in the mountains of Crimea, the Russia. The discoverer was the well-known Russian astronomer Grigorij Nikolaevich Neujmin (born 1886 in Tbilisi, Georgia; died 1946 in Leningrad), who later became Director of that observatory (1925–1931 and 1936–1941) and Director of the Pulkovo Observatory near St. Petersburg (1944–1946). During three decades he discovered 72 minor planets and 6 comets.

Neujmin's dedication for (951) Gaspra reads as follows: "Named after the re-



sort on the southern coast of Crimea, in which the famous Russian writer Lev Nikolaevich Tolstoy (1828–1910) spent many years of his life." The village of Gaspra is located about 10 km southwest of Yalta.

The present photo was obtained with the 1-metre ESO Schmidt telescope at La Silla on April 9, 1991 and served to measure an accurate position of Gaspra, in support of the navigation of Galileo. The exposure lasted 10 minutes and Gaspra is indicated with an arrow.

On this date, its distance from the Earth was 262 million km and the magnitude was about 15.

The background of the photo is a region in the southern constellation Ophiuchus (the Serpent-holder) which is characterized by relatively few stars, but many bright and dark nebulae. The brightest of the three stars in the top right corner is the 5th-magnitude Rho Ophiuchi, a hot and young double star. It is surrounded by nebulosity that reflects the light from the stars.

New ESO Preprints

(September–November 1991)

Scientific Preprints

789. F. Bertola, G. Galletta and W.W. Zeilinger: The Minor-Axis Dust-Lane Elliptical NGC 1947. *Astronomy and Astrophysics*.
790. P. Padovani and C.M. Urry: Luminosity Functions, Relativistic Beaming, and Unified Theories of High-Luminosity Radio Sources. *Astrophysical Journal*.
791. G. Bertin, F. Bertola, L.M. Buson, I.J. Danziger, H. Dejonghe, E.M. Sadler, R.P. Saglia, P.T. de Zeeuw and W.W. Zeilinger: The ESO Key Programme: A Search for Dark Matter in Elliptical Galaxies. Presented by F. Bertola at the 2nd DAEC meeting "The Distribution of Matter in the Universe", Observatoire de Meudon.
792. D. Baade: Binary Be Stars and Be Binaries. Invited talk presented at IAU Symp. 151 "Evolutionary Processes in Interacting Binary Stars", held Aug. 5–8, 1991 in Cordoba, Argentina.
793. A. Smette, J. Surdej, P.A. Shaver, C.B. Foltz, F.H. Chaffee, R.J. Weymann, R.E. Williams and P. Magain: A Spectros-

copical Study of UM673 A&B: on the Size of Lyman- α Clouds. *Astrophysical Journal*.

794. P. Møller and P. Kjaergaard: The Expected Ionization of HI by Line of Sight Neighbour Quasars: Measuring the Quasar Beaming. *Astronomy and Astrophysics*.
795. M.R. Rosa, H. Zinnecker, A. Moneti and J. Melnick: The Galactic Center in the Far-Red. *Astronomy and Astrophysics*.
796. M. Bersanelli, P. Bouchet, R. Falomo and E.G. Tanzi: Homogeneous J, H, K, L Photometry of a Sample of BL Lac Objects. *The Astronomical Journal*.
797. T. Prusti, H.-M. Adorf and E.J.A. Meurs: Young Stellar Objects in the IRAS Point Source Catalog. *Astronomy and Astrophysics*.
798. R.M. West and R.H. McNaught: Earliest Photometry of SN 1987A. *Astronomy and Astrophysics*.
799. M. Della Valle: Nova LMC 1991: Evidence for a Super-Bright Nova Population. *Astronomy and Astrophysics*, Letters.
800. M. Fulle, F. Pasian and P. Benvenuti: HST Observations of the Inner Coma of Comet Levy 1990c. *Anuales Geophysicae*.

801. Bo Reipurth, S. Heathcote and Frederick Vrba: Star Formation in Bok Globules and Low-Mass Clouds. IV. Herbig-Haro Objects in B335. *Astronomy and Astrophysics*.
802. Bo Reipurth, A.C. Raga and S. Heathcote: Structure and Kinematics of the HH 111 Jet. *Astrophysical Journal*.

Technical Preprints

34. P. Dierckx: Optical Performance of Large Ground-Based Telescopes. *Journal of Modern Optics*.
35. W. Schröder, H. Dahlmann, B. Huber, L. Schüssele, F. Merkle and M. Ravensbergen: Telescope Pointing and Tracking with Optical Gyros. To be published in the Proceedings of SPIE, Vol. 1585 (1991).
36. B. Lopez and M. Sarazin: Optimum Exposure Times for Interferometry. ESO Conference on High Resolution Imaging by Interferometry II, Garching, Oct. 14–18, 1991.

New ESO Scientific Report

No. 10 – October 1991. M.-P. Véron-Cetty and P. Véron: A Catalogue of Quasars and Active Nuclei (5th Edition).