## In Memoriam Giovanni Bignami

Tim de Zeeuw<sup>1</sup> Roberto Gilmozzi<sup>1</sup>

<sup>1</sup> ESO

Giovanni Bignami, still very active at age 73 and a member of ESO Council from 2013 to 2015, has sadly passed away. He chaired the Tripartite Group, served on Council's Strategy Working Group, and was instrumental in convincing the Italian government to participate in ESO's Extremely Large Telescope (ELT) programme.

Giovanni (Nanni to everyone who knew him) graduated from the University of Milan and started work on detection of cosmic gamma-ray sources. From 1988 to 1997 he was Principal Investigator of the X-ray Multi-Mirror Mission (XMM-Newton) and a professor at the University of Pavia. He directed the Centre d'Etude Spatiale des Rayonnements in Toulouse (2003-2006). He chaired ESA's Space Science Advisory Committee and in this role was the main architect of Cosmic Vision 2015-2025 which laid out the ambitious series of missions that ESA is currently implementing. Nanni was scientific director of the Italian Space Agency from 2007 to 2008 and served as its president from 2010 to 2012. In the same period he was the first Italian president of the Committee on Space Research (COSPAR). From 2011 to 2015 he was president of the National Institute of Astrophysics (INAF). At the time of his death Nanni was chair of the Board of the Square Kilometer Array (SKA) and vice chair of the Scientific and Technical Committee of the Cherenkov Telescope Array (CTA).

Nanni was well known for the discovery of Geminga. This peculiar object was first detected as a gamma ray source in the constellation of Gemini by the NASA Second Small Astronomy Satellite (SAS-2), hence its nickname as the Gemini gamma ray source (with an additional meaning in Milanese dialect for 'not there', alluding to the difficulty of its identification) and later confirmed, although not localised to better than a few degrees, by the COS-B satellite. It was detected by the Einstein satellite (as 1E 0630+178; Bignami et al. 1983) and then found to be X-ray bright, optically faint and with very weak radio emission: this demonstrated that it is an isolated neutron star which is relatively close to the Sun and hence has a large proper motion (178 mas yr<sup>-1</sup>). Nanni continued to study Geminga in collaboration with his wife, Patrizia Caraveo, and together they contributed an authoritative review (Bignami & Caraveo, 1996)

Nanni was an enthusiastic and avid promoter of science and its role in our culture, with many appearances on television and articles in newspapers. He authored popular books on science (e.g., Bignami, 2012; 2014) and was a strong promoter of the exploration of the Solar System (Bignami & Sommariva, 2013), convinced that man would walk on Mars



within our lifetime. He was awarded many honours and prizes, and asteroid 6852 was named after him ("Nannibignami").

Nanni's energetic and proactive approach to anything he turned his attention to was a shining example for all he worked with.

## References

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Giovanni Bignami (fourth from the right) at Paranal, during the visit by the Italian Prime Minister Matteo Renzi (third from the right) in October 2015.