

In memoriam Thijs de Graauw (1942–2026)

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On 20 April Thijs de Graauw passed away in Santiago de Chile at the age of 84.

Thijs was a world expert and pioneering leader in the field of millimetre and infrared astronomy and was known to many for his fundamental contributions to European space missions, as well as to ALMA.

He was the Principle Investigator of the Short-Wavelength Spectrometer (SWS) aboard the European Infrared Space Observatory (ISO) and the Heterodyne Instrument for Far Infrared (HIFI) at the international Herschel Space Observatory, leading the large international teams for both instruments from the conceptual phase through development (pioneering new developments more than once), prototyping, flight model construction all the way to spacecraft launch and scientific exploitation.

During the crucial construction phase of ALMA, from 2008 to 2013 he was the director of this large international sub/millimetre interferometer at 5000 metres altitude.

Thijs was a unique and special person. He was dedicated, modest, a strategic thinker and actor and had the exceptional capability of bringing together a wonderfully diverse group of people and channelling their strengths toward a common goal. He was guiding the collaborations with vision, humour and an unshakeable sense of direction. He was also a master of initiating and kicking off new developments anticipating future needs and the right direction much earlier than most other people.

At times he reminded me of an expedition leader, selecting the expedition team from all over the world for a long and difficult journey with possible hardships, defining the goals for the expedition (which in general in his words were “exploring



the Universe”), setting out for a journey lasting many years and navigating around many difficulties and obstacles with great resourcefulness. He was very creative in finding solutions. Once during the development of HIFI, a cryogenic amplifier developer was urgently needed, but there was no budget and no time to hire someone. So he organised, via a professor of electrical engineering in Taiwan (whom he somehow knew), that the professor’s best student would come from Taiwan to Groningen for some time for this task. Of course, the development was successful.

During these long journeys he was a strong leader, motivating team members with his enthusiasm and optimism and providing support whenever needed. He had an immense work capacity and was absolutely committed to the goals. Once facing a difficult project situation with the risk of project failure, he said just four words to me quite unemotionally “*We don’t give up*” — and indeed he never

gave up. After he retired in 2013, he stayed in Chile and supported and pursued several international projects. In particular, in his last years he developed and built a new and relatively inexpensive planetarium dome with the goal that “*no Chilean child grows up without looking at the stars*”, as he told me once. His intention was to build 100 planetariums throughout Chile.

Thijs had a great sense of humour. Thomas Klein (Director of La Silla Paranal Observatory) remembers that shortly after receiving his PhD and about to take on an important project role for the Herschel-HIFI instrument in his institute, he met Thijs for the first time at a consortium meeting in Pasadena. When he entered the meeting room Thijs approached him immediately, introduced himself as the PI of HIFI, and said: “*Thank you for joining the HIFI consortium. We were eagerly expecting you. This is a zoo where you will find all species you can think of — and I am sure you will discover new ones.*”

On another occasion at an early ALMA meeting in Leiden to discuss the ALMA receiver specifications and technology, Thijs’s expertise was questioned by a meeting participant with the words “*Well, who are you anyway in this field and what have you achieved in such projects?*”. Thijs just smiled and replied to the person “*I’ll send you my CV.*”

Thijs’s passing leaves a big hole. The infrared and millimetre community in Europe and worldwide owes Thijs a great deal. We are going to miss him terribly.