

Bernard Guinot (1925-2017)



Homage

*Journées 2019
Paris, 7 octobre 2019*

Bernard Guinot, honorary astronomer of the Observatoire de Paris, died on March 6, 2017, aged 91.

Officer in the shipping department, he became astronomer at Paris Observatory in 1952.

The director, André Danjon, associated him with his research on the astrolabe named after him and B. Guinot was actively involved in the further development of this instrument and of its scientific applications.

In 1965, he became Director of the Bureau International de l'Heure (BIH), a position he held until 1985 at Paris Observatory, in the Department of Fundamental Astronomy (now SYRTE).

In this position, he was one of the most active authors of the transition from the astronomical measurement of time to its quantum measurement and one of the major players in the organization of world time metrology.

He also devised new algorithms for the calculation of Universal Time UT1 and pole coordinates; he developed methods for the transition from optical measurements to space geodesy techniques and created a rapid service for the needs of space research.

In 1979, he proposed the definition of a new equatorial origin, the “non-rotating origin” (NRO), which was adopted at the international level in 2000.

In 1980, Bernard Guinot proposed, within the framework of a co-operation with the IGN, [the use of space geodesy observatories](#) contributing to the measurement of Earth's rotation [for the maintenance of the global geodetic reference system](#).

[He is thus the instigator](#) of the geodetic reference system used worldwide, [which gave birth to the current International Terrestrial Reference System \(ITRS\)](#). The first realization of this system was in 1985, and later, in 1988 with the creation of the International Earth Rotation and Reference System Service (IERS).

In 1985, he joined the BIPM as a principal physicist, then as a consultant.

He [officially transferred the BIH activity on TAI to the BIPM in 1988 at the creation of the IERS](#), which replaced the IPMS and the Earth-rotation section of the BIH.

In addition to his activities on time scales, Bernard Guinot devoted himself to [the problem of the relativistic definitions of space-time references](#) of which he assured the recognition by the IAU in 2000.

He wrote a large number of [authoritative publications](#) on space and time references and had an [extraordinary clarity for presenting his ideas](#)

During his career, B. Guinot has been given many responsibilities; in which his competence, rigor and scientific authority **have always been unanimously recognized.**

At a national level, he was

- in charge of the *Astrolabe Service*, the *Service de l'Heure* at Paris Observatory and then the *Primary Time and Frequency Laboratory* (LPTF).
- a member of the board of directors of *the Bureau national de métrologie* (BNM),
- Executive director of the *Groupe de recherche de géodésie spatiale* (GRGS),
- President of the *Bureau des longitudes*.

At the international level, he was President of

- . *IAU Commission 19* (Rotation of the Earth; (1961-1967),
- . the Scientific Council of the *International Polar Motion Service* (IPMS),
- . the Federation of the Astronomical and Geophys data analysis Services (FAGS),
- . the CIPM Consultative Committee *for the Definition of the Second* (CCDS)

and was a Member of the International Committee of Weights and Measures (CIPM).

The great scientific rigor and innovative concepts that he has shown during his sixty years of scientific activity have allowed him to make astronomy and time measurements best benefit from the gain of precision brought by space geodesy and atomic clocks.

We have lost with him a very prominent personality and a very good friend.