John Hugh Seiradakis

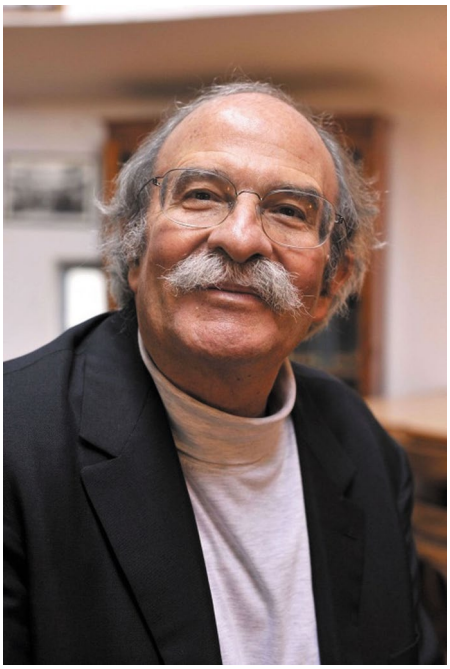
On 3 May 2020 the Greek and extended international astronomy community lost Professor Emeritus John Hugh Seiradakis, a highly impactful, wide-reaching researcher and educator, and mentor to generations of students.

John (Jiannis or Johnny to his colleagues, friends and family) was born on 5 March 1948 in the town of Chania on the island of Crete, Greece, to his mother Mercy Burdett Money-Coutts Seiradaki and his father Michael Seiradakis. Michael was a proud Cretan from a small farming village, who fought with the resistance against the Nazis during the Second World War. In 1947 he married Mercy, a British archaeologist who had moved to Greece in the 1930s and worked on various projects, including the Knossos excavations. She later worked with the Red Cross, and during and after the war she established and directed an orphanage on Crete.

Jiannis spent his childhood on Crete but finished high school in Athens, where the family, including his younger sister Sophia Hester, had moved in 1962. He studied physics at the University of Athens and moved on to postgraduate studies in radio astronomy at the University of Manchester and the Jodrell Bank Observatory. He received his PhD in 1975, completing his dissertation with Dr John G. Davies, which focused on the design and execution of the first low-latitude survey for pulsars in the Galactic plane. During his PhD, Jiannis discovered 18 new pulsars (one associated with a supernova remnant), increasing the then known sample by 20%, and leading to several influential publications.

Over the next 10 years, Jiannis pursued research in radio astronomy, first as a postdoctoral fellow at the Max Planck Institute for Radio Astronomy (MPIfR), then as a researcher at the University of Hamburg and the University of California, San Diego, and also as an Alexander von Humboldt fellow, again at the MPIfR. In addition to his research on pulsar surveys and studies of their emission, Jiannis worked on the development of instrumentation for the 100 m Effelsberg radio telescope, interstellar scintillation and surveys of neutral hydrogen in other galaxies. In 1984, his research expanded to studies of the Galactic Centre, revealing through radio polarimetry a new symmetric, jet-like structure extending from Sgr A* at 10 GHz. This breakthrough result graced the cover of *Nature* on 24 October 1985.

In 1986 Jiannis joined the Aristotle University of Thessaloniki as a junior faculty member, becoming a full professor in 1996.



John Hugh Seiradakis (1948–2020).
Credit: John Antoniadis

Having returned to his home country, for the next 30 years Jiannis opened numerous new chapters in his professional life with a unique passion, energy, kindness, optimism, personal commitment, and effectiveness — a combination that is incredibly rare to find in one person. Nothing was a true roadblock for Jiannis; every disappointment was an opportunity to walk a new path, figure out a new solution, and bring people together, all making his inspiring vision an impactful reality for so many. He worked tirelessly without losing enthusiasm, and was in the trenches of his projects (in research, education and science policy) while at the same time operating at the highest levels of planning, strategizing and participation in decision-making, and he achieved so much.

In research, he continued his pulsar studies through the late 2000s together with international collaborators. He was one of the handful of founding members of the European Pulsar Network (EPN), PuLSE (one of the very first pan-European research networks), spearheading the EPN format and database for pulsars, which for the first time allowed pulsar astronomers to share their data effectively and to make them publicly available. As part of the PuLSE team, Jiannis was honoured with one of the European Union's most important science awards, the Descartes Prize, in 2005. He further expanded his research from radio to optical astronomy in collaboration with his dear colleague and friend Prof. Stavros Avgoloupis to study flaring stars using telescope facilities in Greece, as well as to study lunar transient phenomena.

In the mid-2000s Jiannis pursued a unique opportunity to combine his astronomy research with his mother's love of archaeology and Hellenic culture. He co-led an interdisciplinary research team that founded the academic core of the Antikythera Mechanism Research Project, an international collaboration that aims to understand the function and significance of the Antikythera mechanism. Their work (published in a series of research publications, including *Nature Astronomy*, where a review led by Jiannis appeared) revealed that the mechanism operates as a complex mechanical 'computer' that tracks the cycles of the Solar System. In the time between the beginning of the project and his passing, Jiannis delivered more than 200 invited lectures around the world, inspiring diverse audiences from scientists and engineers across many disciplines, to school kids and the general public, and even to politicians, including those at the European Parliament.

As important and wide-reaching as his research was, for generations of students and thousands of astronomy enthusiasts Jiannis's most impactful work was in education and public outreach. The course in observational astronomy he co-developed with Prof. Avgoloupis (he also co-wrote a textbook on the topic, of the same name, as well as two other textbooks) became legendary at the University of Thessaloniki. For about 30 years, Jiannis inspired and trained dozens of physics undergraduate students, many of them (the first author among them) continuing their astrophysics studies and becoming professionals holding research and academic positions in Greece and around the world.

Jiannis was a passionate, eloquent teacher, with a natural talent for explaining concepts in physics and astronomy and transferring his love of and enthusiasm for the latter with

ease and captivating generosity. Beyond his professional work, he loved the joy of amateur astronomy and worked alongside regional societies across Greece to support their activities and their efforts in educating local communities. His public lectures always attracted large crowds, and together with amateur astronomers he also became a solar-eclipse chaser.

Despite his kind, soft-spoken demeanour, Jiannis was a force of nature when it came to envisioning and formulating a project, managing it, assembling and leading a team, and ultimately bringing the whole endeavour to fruition. He worked tirelessly on the advancement of Greek astronomy through education within and outside the university, and also through the advancement of science policy. In 2006, with his impetus, the International Astronomical Union established the International Olympiad on Astronomy and Astrophysics (IOAA), an international competition for high-school students that is now one of the International Science Olympiads. Jiannis represented Greece on the IOAA board until his passing, and he co-led the Greek student team from 2007 until 2017. He also spearheaded the founding of the Hellenic Astronomical Society and served as the elected society secretary (1994–1998) and president (1998–2002). He served as member (1986–1990) and as chairman (2001–2005) of the Greek National Committee for Astronomy, and was also a founding member of the Interdisciplinary Centre for Aristotle Studies at the University of Thessaloniki, serving as its vice-president from 2011.

Jiannis touched the lives of many, not only by influencing their career, but also by acting as a role model of how to behave as a human being towards others. His gentle manners, his wisdom, and the clarity of his teaching and advice will be sorely missed by his family, friends, colleagues, students and mentees alike. The list of mentees includes the authors of this obituary, who share and treasure this link with so many others in the world. As with many others, our initial academic bond with Jiannis transformed naturally into a close friendship. All of these friends and colleagues feel for the family of Jiannis, who is survived by his sister, his daughter Elena and son Michael, and his grandchildren — one, Johnny Jr, not yet born at the time of writing.

Jiannis passed away on 3 May due to a cancer-related illness at the age of 72. He would have loved to continue uncovering the mysteries of the Antikythera mechanism and inspiring students and the public with the wonders of astronomy for some more time; we would have liked to keep listening to and learning from him for some time longer, too. But his memory will live on in the generation of astronomers who will try to follow in Jiannis's giant but gentle footsteps. ❐

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