

*Doyen of Japanese physics Satio Hayakawa died on 5 February, aged 68. A life-long leader in various fields of physics, his talents and interests extended from cosmic rays, particle physics and nuclear physics to cosmology. He was continually opening new physics frontiers, each time characteristically organizing a new research group.*

*After graduation from Tokyo, his research career began after World War II, working under Tomonaga on cosmic rays. He quickly moved to the forefront of Japanese cosmic ray and particle physics, becoming a valued collaborator of Yukawa, Tomonaga and Sakata. At 29 he was named first full professor of the Institute of Fundamental Physics newly established at Kyoto, and six years later moved for good to Nagoya, where he eventually became the University's President.*

*While working on cosmic rays, meson theory and nuclear reactions as a theorist, he also created experimental high energy physics and nuclear physics groups. Many distinguished experimentalists began their careers under his guidance. He was also a driving force behind the ultimate establishment of Japanese KEK Laboratory (where he served on the Board of Counsellors) and other national research institutes. A plasma physics pioneer, he was a founder of Nagoya's Institute of Plasma Physics.*

*His deep knowledge of nuclear physics was quickly applied to astrophysics, resulting in important initial studies of stellar life-cycles. He then turned to the new field of X-ray astronomy, where he promoted satellite programmes, again making many distinguished contributions. The latest example of his continual activity was to push for more research on gravitational waves, where he did not live to see the outcome.*

*Hayakawa was an all-round scientist, for whom theory and experiment were inseparable. He was also a staunch advocate of international collaboration in space research and high energy physics. He served as the chairman of the IUPAP Commission on Astrophysics.*

