elementary particles and found intrinsic relationships among them. This work changed the style of the physical mentality and for many years influenced the development of theoretical and experimental high energy physics.

In the middle of the 1960s Bogolubov started to study hadron symmetries and the construction of baryons and mesons from new fundamental constituents: quarks. With his disciples, he introduced a new quantum number for quarks, which later would receive the name "color." The concept of color quarks is now the most important in the modern theory of strong interactions, quantum chromodynamics.

The key feature of Bogolubov's style was his skill in grasping the most important problem and then elaborating a universal and efficient method to solve it without any fear of difficulties. Bogolubov contributed to many branches of mathematics, mechanics and physics. Norbert Wiener once wondered if there were several Bogolubovs, each being a prominent specialist in his field.

From 1965 to 1989 Bogolubov was the director of the Joint Institute for Nuclear Research. Under his leadership the institute coordinated the development of physical investigations in its member states. He initiated an international cooperation with many science centers throughout the world. As the originator of new ideas and promoter of new trends in physics, Bogolubov contributed greatly to the position of the institute among centers investigating the physics of particles and nuclei.

Bogolubov had a broad and encyclopedic knowledge far beyond the exact sciences, as well as an unfailing kindness and generosity, which were known to several generations of physicists. A number of scientific schools were established around Bogolubov: mathematical physics and nonlinear mechanics in Kiev and theoretical and mathematical physics in Moscow and Dubna. His disciples now carry out research in Kiev, Moscow, Dubna, Tbilisi, Baku, Erevan, St. Petersburg, Nizhny Novgorod and other places in Russia as well as abroad.

Bogolubov was an outstanding and influential figure in world science and politics. His colleagues, disciples and friends, all those who knew and loved him, keep deep inside themselves the memory of this extraordinary man.

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Feza Gürsey

Feza Gürsey, the J. Willard Gibbs Professor Emeritus of Physics at Yale University, died on 13 April 1992 at the age of 71. He will be remembered for the originality, elegance and effectiveness of his uses of mathematical methods, especially group theory, in physical problems and as an outstanding teacher who was very dedicated to his numerous students.

Feza was born in Istanbul, Turkey. His undergraduate education was at the University of Istanbul, where he received a BS in physics and mathematics in 1944. In 1950 he obtained a PhD in mathematical physics from Imperial College, London. He was a docent at the University of Istanbul from 1954 to 1961 and a professor at the Middle East Technical University from 1961 to 1964. In 1965 he joined the faculty of Yale University first as a visitor and then in 1968 on a permanent basis.

Feza's early work on the group structure of elementary particles and the symmetries of strong and weak interactions drew immediate attention. It contained the first suggestion of chiral symmetry in the strong interactions, which was later fully formulated in the much celebrated nonlinear sigma model. In 1962, while spending the summer at Brookhaven National Laboratory, he wrote in collaboration with Luigi Radicati a paper on the spin and unitary-spin independence of the strong interaction, introducing the group SU(6) as an approximate symmetry of quarks at low energies. This paper had an enormous and lasting impact on the physics of elementary particles.

Feza made a major contribution to the construction of unified theories of elementary particle interactions with the introduction of symmetry based on the groups E(6) and E(7)—the first use of the exceptional Lie groups in physics. Such constructions have become even more relevant: One of the most promising superstring models, the heterotic string, has an $E(8) \otimes E(8)$ gauge symmetry group.

Feza Gürsey

Feza's contributions to mathematical physics were deep and innovative. He was a proponent of the use of quarternionic analyticity in gauge theories, an idea that was subsequently used, for example, in the solution of the multi-instanton problem. He used his profound and extensive knowledge of mathematics to help bridge the gap between physicists and mathematicians and had a strong influence at Yale in establishing a vigorous interaction between the departments of physics and mathematics.

Although physics and mathematics were Feza's first loves, he was in fact a much broader person. He had a vast knowledge of history, particularly that of physics and mathematics, as well as the history and the traditions of the Middle East. His interest extended to literature and the arts, world affairs and the plight of third world nations in their search for justice and development.

Feza was a very gentle, kind and good man. Open to people of the most diverse backgrounds, he was always willing to help people and to invite them to his house, and he had a special rapport with the young. His death is a great loss for the entire physics community, but Feza's legacy will live on among his friends and future generations of physicists.

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John Donovan Strong

John Donovan Strong died on 21 March 1992 in Amherst, Massachusetts, at the age of 87.

Strong was respected throughout the world for his skill in physics, particularly optical physics, and for his students, who proved to be highly competent physicists in their own right.

Strong attended Friends University for a time and graduated from the University of Kansas in 1926. Subsequently he received his MS in 1928 and his PhD degree in physics in 1930 from the University of Michigan. At the University of Michigan, he grew large crystals of KBr that allowed spectrometry at longer wavelengths in the infrared, and he experimented with the thermal evaporation of met-