

In Memoriam

Zvi (Harry) Lipkin 1921-2015

Harry (Zvi) Lipkin passed away on 15 September. He was one of the leading theoretical physicists of Israel, one of the founders of the Physics Department of the Weizmann Institute, and a major contributor to a broad spectrum of topics. Unlike most theoretical physicists, his originality and creativity continued for many decades; he was the prolific author of excellent new ideas at an age when others retire and most have forgotten their last important contribution.

Lipkin was born in New York City in 1921 and grew up in Rochester, New York. His life was very rich: he graduated in engineering; contributed to the crucial WWII anti U-boat microwave radar project at MIT; undertook an experimental-physics PhD thesis at Princeton; immigrated to Israel with his wife Malka to start a pioneering life in an agricultural kibbutz on the Lebanese border; was sent to France to study nuclear reactors; joined an early R&D unit of the Israeli army; co-founded and moved into the newly created Department of Nuclear Physics at the Weizmann Institute; became a theoretical nuclear physicist... and we have only reached 1955 in his history. For the remaining 60 years of his life, he also contributed to theoretical condensed-matter physics, particularly the Mössbauer effect; basic problems in quantum mechanics; and, especially, particle physics, with an emphasis on symmetries, quark-model analysis, applications of group theory and a wide variety of other topics. His book *Lie Groups for Pedestrians* introduced many generations of physicists to the subject. He received several major prizes, including the Wigner Medal, the Emet Prize and the Rothschild Prize. He spent long periods of research in the US, especially at Argonne National Lab and, for decades, was a frequently invited speaker at just about every major physics department and conference.

But his original contributions to physics research were only one aspect of his incredible career. He always felt that one should never take oneself too seriously, even as a scientist. Together with virologist Alexander Kohn, he founded the *Journal of Irreproducible Results*, in which no allegedly serious scientific topic remained immune to parodies, jokes and ridicule. Lipkin was also passionate about the teaching of reading in elementary schools, a subject about which he held strong, well-informed views, often arguing his case in widely distributed written contributions. He did the same on his own interpretations regarding events in the Middle East, and was essentially a prolific blogger, decades before the word "blog" was coined. In the 1980s, Lipkin corresponded with the exiled Andrei Sakharov, and was instrumental in keeping Sakharov's fate in the focus of public opinion.

His research, as well as his attitude to everything else, was enriched by a unique ability to provide simple descriptions and explanations, often using analogies to better understood topics. His physics work always stood on several basic, solid legs: maximal contact with experiments, both already performed and newly proposed; a rare intuition for complex quantum-mechanical paradoxes and dilemmas, a feature that most great physicists understand but have no intuition for; and an ability to see through a myriad of irrelevant details, straight to the heart of the matter.

Lipkin was an excellent scientist, great mind and a wonderful tour guide through many labyrinths. We are proud to have been his friends and collaborators.

Haim Harari, Weizmann Institute and Marek Karliner, Tel Aviv University.