

the strange resonances violated Eddington's rule by an enormous factor. We had designed our chambers with a fish net to match the decay lengths of the strange particles, in the range from millimeters to perhaps 20 centimeters. But the most important "fish" we caught had decay lengths shorter by factors of about 10^{12} — just the factor by which the lifetimes of the strange particles had been increased over typical "nuclear times" to make physicists call their behavior "strange."

What made the discovery possible was of course our extensive set of computer software that came from the Solmitz-Rosenfeld collaboration and the many talented associates they had recruited to work with them. And it also took the perseverance of two dedicated graduate students, Stan Wojcicki and Bill Graziano. We all know that Jocelyn Bell discovered the pulsars for which her graduate advisor, Antony Hewish was subsequently honored. In the resonance business, Stan and Bill were my two Jocelyn Bells, and I'm pleased to acknowledge their discovery. Bill is now doing other things, but Stan is well known to all of you as the leader in the plan to build the SSC at the earliest possible moment. Stan and Bill accidentally discovered the now standard method of finding new particles by looking for bumps in invariant mass plots. (For many years, I thought of myself as a "professional bump-hunter," and I've found that that is still a pretty good job description, now that I'm working in geology and paleontology.)

The discoveries of the first three strange resonances were published by a group of seven of us, known collectively as (Margaret) Alston et al. The first one is now known as the Σ 1385, the second as the Λ 1405, and the third as the K^* 892. Bogdan Maglich soon found the ω meson in a 72-inch exposure, using the bump-hunting technique; Harold Ticho led a group at UCLA that used 72-inch film to find the Ξ 1530, and Aihud Pevsner led a group at Johns Hopkins that found the η meson in 72-inch film. By giving our precious film to other laboratories, we were following the example set by Lawrence. (The first of the four "missing elements," technetium, was discovered in Palermo, Sicily, by Emilio Segre and C. Perrier, in a molybdenum deflector strip that Lawrence sent them from the 28-inch cyclotron that had been