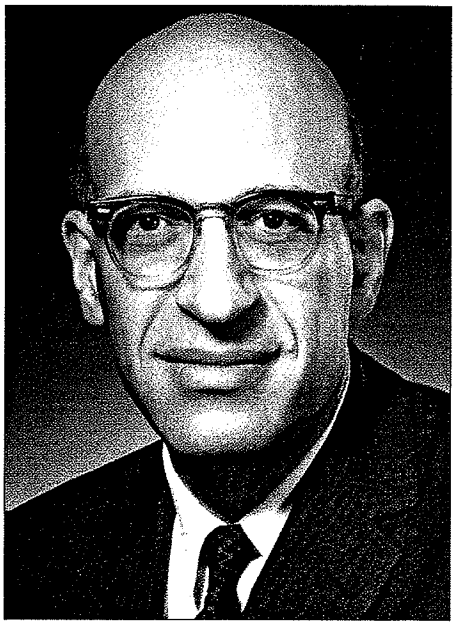
Ralph Shutt 1913–2001



Ralph Shutt 1913–2001 (Brookhaven National Laboratory.)

Born in Switzerland, Ralph Shutt first worked with cloud chambers in Berlin before emigrating to the US in 1939. After the Second World War he played a leading role in track chamber physics with the new high-energy synchrotrons. Using an innovative "diffusion cloud chamber" at the Brookhaven Cosmotron in 1953, he and his colleagues saw that highly unstable particles are produced in pairs – "associated production". This discovery soon led to the idea of strangeness as a quantum number. At the Brookhaven Alternating Gradient Synchrotron, Shutt led the effort to develop and exploit the newly invented bubble chamber. This led to the discovery of many new resonances and particles, culminating with the 1964 discovery of the omega-minus, which confirmed the SU3 classification of particle states. He subsequently transferred his attention to the development of superconducting magnets, work that eventually bore fruit for the RHIC heavy-ion collider.