

Gunnar Källén 1926—1968



GUNNAR KÄLLÉN'S death in an airplane accident, October 13 at Hannover, Germany, is a great personal loss to his many friends all over the world, a loss to research and education in Scandinavia, in which he played an important role, and a loss to theoretical physics where his contributions are well known.

GUNNAR KÄLLÉN was a proud continuer of the tradition in quantum field theory established by WOLFGANG PAULI. His papers on quantum electrodynamics in the period 1950—1954 carried the non-perturbative approach to quantum electrodynamics forward to a point beyond which very little essential progress has been made up to the present day. I still remember the impact of the *Helvetica Physica Acta* paper of 1953. At that time I was trying to puzzle out the grammar of the language of quantum field theory, and here was KÄLLÉN already writing poetry in the language! The paper was followed by another, equally remarkable (*Dan. Vid. Selsk.* 1953). Even though we still do not know the answers to the main questions it tackles, its power and skill are overwhelming. For the

special purposes at hand, it introduces techniques which have been converted into burgeoning industries in the decade and a half that have since elapsed.

It is perhaps ironical that the demands of the problem of proving the existence or non-existence of solutions in quantum electrodynamics led KÄLLÉN to mathematical problems of great difficulty that he would not have found attractive at all in their own right. The tenacity and percipicacity he showed in pursuit of their solutions was really fantastic as coworkers such as JOHN TOLL and I can testify.

In the 1960's he spent an increasing fraction of his time on the phenomenology of elementary particles. A by-product of this was his book "*Elementary Particle Physics*". A typical remark about the book was: "That is the book on elementary particles the experimentalists really find helpful". Those of us who knew him expected that.

KÄLLÉN's unflinching adherence to what he thought was essential and true in theoretical physics was combined with personal cheerfulness and friendliness. The hospitality he and his wife Gunnel offered at their home in Lund was heartwarming. His friends and his coworkers in physics lament his passing.

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