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As a Young University Student

A person who had known Källén as a student was the Swedish theoretical physicist Lamek Hulthén¹. His name is associated with Hulthén potentials, Hulthén-Kohn variational principle and Bethe-Hulthén ansatz.

Reminiscing in 1980, at the opening talk of a symposium [1] he said the following about the 19 year old Källén [2]:

“... In the forties I taught as ‘docent’ at the University of Lund but in the spring term 1945 I took a temporary appointment as professor of mechanics at the Chalmers Institute of Technology in Gothenburg. After a lecture on particle dynamics one of the first year students came up to me and said he would like some extra reading. I asked what he had in mind and he answered “What about relativity?”. So I gave him Einstein’s “Vier Vorlesungen über Relativitätstheori²”. After a surprisingly short time he came back for an examination, with a brilliant result. The student’s name was Gunnar Källén.

Well, I went back to Lund and Källén carried on at Chalmers with his characteristic energy and purposefulness, passing his degree in electrical engineering in 1948. Then he went straight to Lund and it didn’t take him two years to become a full-fledged theoretical physicist. In the title of his first paper, published in the Swedish journal “Arkiv för Fysik”, “The second approximation of the asymptotic phase for the Yukawa potential, treated with Laplace transformations” one may trace the electrical engineer, trained in exploiting Laplace transformation.

When I left Lund for Stockholm in 1949, Gunnar Källén was on his way to Zürich to work with Pauli, who found a kindred spirit in him and praised him accordingly, surprising those who knew Pauli and his rough way of dealing with students. So began Källén’s work on quantum electrodynamics and field theory that took an abrupt end by his untimely death in October 1968, at the age of 42 ...”.

¹ Lamek Hulthén (1909–1995) was a member of the Nobel committee for Physics 1966–79, and its chairman 1975–1979. The reader will meet him again in Chap. 3.

² In English: Four lectures on theory of relativity.

References

1. International Symposium “Perspectives in Modern Field Theories”, Stockholm (September 23–26, 1980), dedicated to the memory of Gunnar Källén; proceedings edited by B. Nagel and H. Snellman, *Physica Scripta*, Vol. 24, No 5 (1981)
2. L. Hulthén, Opening Address at the above Symposium

Portrait of Gunnar Källén

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