

**In memoriam - Jiří Patera (1936-2022)**

Jiří Patera passed away on January 3, 2022 in Montreal. Professor Patera had a long and fruitful career first as a researcher at the Centre de recherches mathématiques (CRM), and then as a professor in the Département de mathématiques et de statistique at the Université de Montréal.



**Notice (by Yvan Saint-Aubin)**

Jiří Patera's scientific career spanned more than sixty years and was conducted in Czechoslovakia, his native country, and mainly in Canada, his adopted one. He received his doctorate from the Czech Technical University in Prague in 1965. In the spring of 1968, Jiří held a visa to attend a scientific event. A few hours before the complete closure of the borders following the Russian invasion, he, his wife Tania, and his daughter Sasha, still in diapers, were able to escape with only what their small car could carry as luggage. Shortly afterwards (August 1969) he was recruited as a researcher by the Centre de recherches mathématiques (CRM) which was then putting together its scientific team. He became a professor in the Département de mathématiques et de statistique of Université de Montréal in 1984.

Throughout his career, his passion was research, mainly on the representation theory of simple Lie algebras and their generalizations. Jiří was a master at establishing long and fruitful collaborations, for

example upon his arrival with Robert T. Sharp of McGill University, his compatriot Pavel Winternitz, himself a researcher at the CRM, and Hans Zassenhaus of the University of Notre Dame, and later with Robert Moody of the University of Alberta. Two *Tables*, monographs collecting data on simple Lie algebras, have been very popular with high energy theorists and pure mathematicians working in representation theory. These *Tables*, obtained in the era of punched card programming, were written with David Sankoff for the first (1973) and with Wendy Mackay for the second (1981). (David Rand participated in a later version of this second table.) His recent work has found applications in cryptography (through the study of non-crystallographic Coxeter groups) and signal analysis (through the study of functions defined on the fundamental domain of a root system and invariant under its Weyl group).

He was a mentor to many students and postdoctoral researchers. As soon as the political situation allowed it, he returned to Prague, after an exile of a few decades. He played a crucial role in enabling many young Czechs to discover the fields he was interested in. Thus, among the more than thirty master's and doctoral degrees he supervised, there are many Czechs and, of course, Canadians. The blindness that slowed him down during the last decade did not prevent him from working with his students until the end. His scientific career was honoured by, among others, the 2004 CAP-CRM Award, jointly presented by the Canadian Association of Physicists and the CRM, and an honorary doctorate in 2006 from the Czech Technical University in Prague.

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## Reminiscences from Robert V. Moody

*I first met George in the late 1970s at a meeting of the CMS. He invited me to visit him at the CRM, and so it was that I first came into his circle. (He told me that unless one spoke Czech, Jiří was impossible to pronounce properly, so it was better for us---and him---if we called him George.) That connection blossomed. In the end we wrote some 25 papers together, and our interactions and friendship extended until the very end. We last spoke a few days before his passing. Over the years we met together at the CRM, the Fields Institute, several times at MSRI in Berkeley, at least five times at the Aspen Institute for Physics, in Prague, and later often at the Mind Research Institute in Irvine. In short, George was a huge component of my research and social life. He deeply influenced my appreciation of mathematical physics.*

*George had the great ability to ask good questions. This is how many of our research efforts began, both in Lie theory and in the theory of aperiodic order. Some of them ended up being amazingly interesting. That questioning mind, and also his habit of throwing students into the deep end and getting them really excited about research right from the beginning, account for some of his amazing success in advancing the mathematical lives of so many students who are fully-fledged mathematicians today.*

*As a person he was tremendously even-keeled, kind, and unaffected. We enjoyed each other's company over the course of some forty years. In the past ten years it was so impressive to see how, even afflicted with ever debilitating blindness, he continued to teach and inspire young researchers. We talked about his blindness, but he never once complained about it. His was a scientific life very well lived. We shall all miss him tremendously.*