

HISTORICAL NOTES

account can be found in an article by Ban, Flensted-Jensen and Schlichtkrull in 'Proceedings of the Edinburgh Conference on Automorphic Forms and Representation Theory', published recently by the American Mathematical Society. In contrast to Harish-Chandra's development, the orbital integral theory is not needed for the Plancherel formula but will clearly become an interesting subject in its own right, generalized to G/H . Many interesting results already exist.

The Institute in Princeton had few formal duties. There Harish-Chandra gave regular lectures on his own work. He delighted in describing his current ideas to others and it was indeed a pleasure to see his ideas emerging in their freshness. I remember a period in the mid-sixties when he was writing his major papers on the discrete series. I had an adjoining office at the Institute. Often I could not help hearing through the wall that he was loudly singing at his desk. Sometimes on such occasions I would knock on his door on a small pretext and find him delighted at the interruption and eager to explain to me what he was doing. I also remember him once coming to my office with a troubled look, having found an unexpected gap in a proof he was writing up. He came to ask me about some result I had proved relating bi-invariant differential operators on G to left invariant operators on G/K . It turned out that these results convinced him that the gap could be filled but it would also mean that the

theorem had to be proved by classification, a method which he had always abhorred. Some of us at the Institute had a good time teasing him a little that now he would have to compromise on those principles. He took this with good humour but knowing now that the theorem was basically right he came quickly up with a general proof (without classification).

As I mentioned, during 1960 persistent illness began to cast an ominous shadow over Harish-Chandra's life. He also realized that the long bouts of intensive mathematical activity might be harmful. On the other hand, mathematical meditation had become such an integral part of his life that abstaining from it seemed unnatural and strenuous. There was a compulsive streak in him which he could not easily control, especially if he found an unexpected obstacle when writing up a proof.

However, through expert medical treatment and Lily's devoted care a certain equilibrium developed. Thus I remember that the years 1964-66, when I was at the Institute, were a happy, relaxed, and productive period for him. However in 1969 he had his first heart attack and from then on his heart condition was a cause of concern. In 1982 it came to a serious crisis and he understood from medical information that the prospects of recovery were dim. Here his family provided invaluable support and for the sake of his safety his daughters, Premi and Dini, accompanied him on his long and frequent walks.

It cheered him greatly to see again many old friends and colleagues at a conference at the Institute in October 1983. Always the perfect gentleman, his spirit seemed to have lifted from the gloom of previous weeks. His warm handshake and radiant smile gave some of us a ray of hope; more likely it meant that he himself had come to terms with his bitter fate. On Sunday 16 October he and Lily had many of the participants at their home. After the guests had departed, he went for his customary walk, but collapsed on the way, was found by passers-by and pronounced dead at the hospital. His ashes were spread in Princeton and immersed in the Ganges near Allahabad.

He lives on in the cherished memories of his friends and in his *Collected Works* which are a must for any serious student of representation theory. As I mentioned in the beginning, they have proved to be a fertile ground for mathematical progress in many different directions of which I have mentioned a very significant one 'Harmonic analysis on semisimple symmetric spaces'. Thus it is certain that Harish-Chandra's works will live for a long time as a brilliant chapter in the history of mathematics.

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