

HARISH-CHANDRA AND HIS WORK

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I began to study representation theory while I was a graduate student at the University of Washington in the early seventies. At that time learning the theory of unitary representations of semisimple Lie groups primarily meant learning Harish-Chandra's work, and it was not an easy task. By that time Harish-Chandra had published over fifty papers, more than a thousand pages, on this subject. His most important papers tended to consist of one or two pages of introduction followed by fifty to a hundred pages of dense mathematics. I was lucky because my thesis advisor, Garth Warner, knew those papers well enough that instead of saying, "Read Harish-Chandra's papers," or "Read *Discrete series*. I," he said, "Read p. 302 of *Discrete series*. I." The good thing about Harish-Chandra's papers was that if you knew what you were looking for and where to start, everything was written down. There were no mistakes, and the notation was always the same. You might have to refer back to three or four of his earlier papers for results, or even definitions, but he told you exactly where to look. I started on p. 302 of *Discrete series*. I with Lemma 56 and worked my way backward and forward, picking up a lemma here and there from earlier sections of the paper and from earlier papers. By the time I really understood that page, I was ready to write the first part of my thesis. In the seventeen years since I finished my PhD thesis, I have kept coming back to Harish-Chandra's papers, gradually picking up more and more pieces as I have needed to learn them for my own work. I never knew Harish-Chandra well personally, although I was lucky enough to spend two years at the Institute for Advanced Study and attend his weekly lectures on work in progress, but he has always been my mathematical hero, so I would like to take this opportunity to introduce you to Harish-Chandra and his work. But before I say anything about Harish-Chandra himself, I would like

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