

Anthony Knapp Appointed *Notices* Editor

Anthony W. Knapp of the State University of New York, Stony Brook, will begin a three-year term as editor of the *Notices*, starting January 1, 1998. A prominent researcher in representation theory of semisimple Lie groups, Knapp is also well known for his mathematical expositions. This year he won the AMS Steele Prize for mathematical exposition for his book *Representation Theory of Semisimple Groups (An overview based on examples)* (Princeton University Press, 1986).

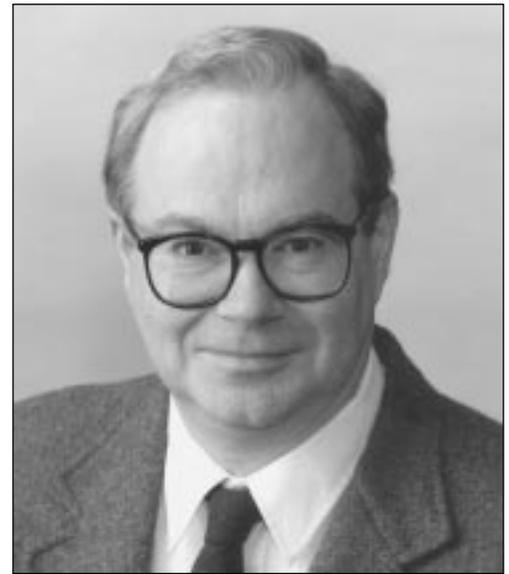
Knapp will succeed Hugo Rossi of the University of Utah, who was editor from January 1995 until August 1997, when he took the position of deputy director at the Mathematical Sciences Research Institute in Berkeley. *Notices* Editorial Board member Andy Magid of the University of Oklahoma has been serving as acting editor until Knapp's term begins.

As an undergraduate at Dartmouth College, Knapp was part of a mathematical milieu where many people were at work on books. While a graduate student at Princeton University, he collaborated with Dartmouth mathematicians John G. Kemeny and J. Laurie Snell on the book *Denumerable Markov Chains*, which was based on an undergraduate course Knapp had taken. The book appeared in 1966, the year after Knapp received his Ph.D. from Princeton University, under the direction of Salomon Bochner. Knapp was a Moore Instructor at the Massachusetts Institute of Technology (1965–67) before joining the faculty at Cornell University. Starting in 1986, he began to spend time at SUNY Stony Brook and moved there permanently in 1990. He presented an invited address at the International Congress of Mathematicians in Vancouver in 1974. In 1982–83 he held a John Simon Guggenheim Memorial Fellowship.

In 1968 Knapp began a fifteen-year collaboration with Elias Stein of Princeton, during which they

made the theory of intertwining operators into a powerful tool for constructing unitary representations by deformation arguments. Around 1975, with Gregg Zuckerman, Knapp completed the classification of “tempered” unitary representations, which appear in Harish-Chandra’s Plancherel formula. In the 1980s came results in complementary series representations, some in joint work with Birgit Spéh and with M. W. Baldoni-Silva. Knapp has also worked on cohomological induction constructions of representations with L. Barchini, David Vogan, and Roger Zeirau and has used cohomological induction to describe exotic unitary representations. The book by Knapp and Vogan, *Cohomological Induction and Unitary Representations* (Princeton University Press, 1995), received an award from the Association of American Publishers.

The book for which Knapp received the Steele Prize brings readers from the level of a second-year graduate student up to current research. The citation for the prize calls it “a beautifully written book which starts from scratch but takes the reader far into a highly developed subject.” His other expository works include *Elliptic Curves* (Mathematical Notes, Princeton University Press, 1992), which received especially wide attention because it appeared close to the time of Andrew Wiles’s announcement of his proof of Fermat’s Last Theorem, in which elliptic curves play a central role. Knapp’s most recent book is the basic graduate text *Lie Groups beyond an Introduction* (Birkhäuser, 1996).



Over the years Knapp's interest in exposition has been fueled in part by contacts with some of the masters of the art, such as Sigurdur Helgason and Elias Stein, both fellow Steele Prize winners. But it was also fueled by the belief that expository writing is important to the development of the field. "Mathematics advances not just by research alone," Knapp notes. "There is a process of distillation that is necessary." The work of the most prominent mathematicians is usually accessible, chiefly through collected works, "but apart from that, unless mathematics gets into some other form—a book form or expository article form—my sense is that it tends to get lost," he remarks. "So exposition is a way of collecting, from the vast amount of research done, the mathematics that survives.... Collectively, mathematicians have this responsibility."

His wife, Susan Knapp, will serve as editorial assistant for the *Notices*. This arrangement has its clear advantages, she notes: "We can talk about the *Notices* at breakfast." Her background in mathematics—she has a bachelor's degree in the subject—will be a useful resource. She has had experience working with mathematics publications, having served as an editorial assistant for the *SIAM Journal on Computing*. She also worked for a brief stint as a secretary for another AMS publication, *Journal of the AMS*.

Anthony Knapp wrote a two-part article for the *Notices* entitled "Group Representations and Harmonic Analysis from Euler to Langlands" (April 1996, pages 410–415, and May 1996, pages 537–549). As editor he is interested, as Hugo Rossi was, "in articles that cut across fields and show connections and possible connections among areas of mathematics." Knapp would like the articles to be akin to excellent colloquia that *Notices* readers can "attend" each month. "I'm constantly on the lookout for possibilities for good mathematics articles," Knapp says. "I'm interested in hearing from people that they heard someone give a wonderful talk that might be converted into a good *Notices* article. I'll do my best to pursue those and persuade people to write them up."

Those with ideas for articles are encouraged to contact Knapp by e-mail at notices@math.sunysb.edu or by regular mail at this address: Anthony W. Knapp, Editor, *Notices* of the AMS, P.O. Box 333, East Setauket, NY 11733.

— Allyn Jackson