

analytic, as exemplified by the different treatment of the discrete series. Finally, Knapp's book contains a large supply of examples, valuable to both novice and expert. Because of these differences, any serious reader of *Real reductive groups*. I should have Knapp's book [3], together with Vogan's book [5], close at hand.

REFERENCES

1. Harish-Chandra, *Harmonic analysis on semisimple Lie groups*. Bull. Amer. Math. Soc. **76** (1970), 529–551.
2. ———, *Harish-Chandra's collected papers* (V. S. Varadarajan, editor), vols. 1–4, Springer-Verlag, Berlin and New York, 1984.
3. A. Knapp, *Representation theory of semisimple groups*, Princeton Math. Series 36, Princeton Univ. Press, Princeton, N. J., 1986.
4. A. Knapp and G. Zuckerman, *Classification of irreducible tempered representations of semisimple Lie groups*, Ann. of Math. (2) **116** (1982), 389–501.
5. D. Vogan, *Representations of real reductive Lie groups*, Progress in Math. 15, Birkhauser, 1981.
6. N. Wallach, *On the unitarizability of derived functor modules*, Invent. Math. **78** (1984), 131–141.

DAVID H. COLLINGWOOD
UNIVERSITY OF WASHINGTON

BULLETIN (New Series) OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 22, Number 1, January 1990
©1990 American Mathematical Society
0273-0979/90 \$1.00 + \$.25 per page

Pi and the AGM: A study in analytic number theory and computational complexity, by Jonathan M. Borwein and Peter B. Borwein. Canadian Mathematical Society Series of Monographs and Advanced Texts, John Wiley and Sons, New York, Chichester, Brisbane, Toronto, Singapore, 1987, xi + 414pp. \$49.95. ISBN 0-471-83138-7

On August 15, 1989, the op-ed page of the New York Times carried an article entitled *Call it Pi in the sky* by Stewart Wills. The leading paragraph gives Wills' immediate response to the recent work of the Chudnovskys concerning the digits of π ! "I shouldn't have let the news upset me. It was cause for celebration. Two Columbia University mathematicians using a powerful computer had calculated the symbol pi to 480 million decimal places. Yet it