6. J. Smoller, *Shock waves and reaction-diffusion equations*, Grundlehren Math. Wiss., vol. 258, Springer-Verlag, Berlin and New York, 1983.

7. T. Wazewsky, *Sur un principe topologique de l'examen de l'allure asymptotique des intégrales des équations différentielles*, Ann. Soc. Math. Polon. **20** (1947), 279–313.

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Quadratic and Hermitian forms, by Winfried Scharlau. Grundlehren der Mathematischen Wissenschaften, vol. 270, Springer-Verlag, Berlin, Heidelberg, New York and Tokyo, 1985, x + 421 pp., $84.00. ISBN 3-540-13724-6

When my own book [L] on quadratic forms appeared in 1973 (W. A. Benjamin, Inc.), A. Pfister's review of it in *Zentralblatt für Mathematik* began with a polite exclamation: "Ein neues Buch über quadratische Formen!" Having thus acknowledged my source, it nevertheless seemed appropriate for me to begin this review of Scharlau's book by exclaiming: "A new book on quadratic forms!"

The point is, of course, that a new book in quadratic forms is not like a new romance novel on the supermarket stand. Generally, one does not write a new book in mathematics unless one has something new to say, or at the very minimum, has something to say in a new way. In the arena of quadratic form theory, fortuitously, all authors, past and present, have adhered scrupulously to this principle. Thus, when a new book in quadratic forms appears, readers in the field greet the event with interest and considerable expectations.

So far, about a couple dozen books in quadratic forms have been written. Scharlau listed them chronologically in a special section in his bibliography. Using the year 1967 as a watershed, the list enumerates exactly 12 books written on or before 1967, and another 12 books written thereafter. This carefuly compiled list of books provides us an excellent vista point from which to view the historical development of the subject. In particular, before talking about Scharlau's book, it would be worthwhile to first take a look at this book list, to see what has been written on the subject before.

Looking through this list, one sees that few of the books among the two dozen duplicated others. Each book seemed to have its own focus in the vast subject of quadratic forms, from the days when the subject was a subdiscipline of number theory, to the modern age when the number-theoretic approach and the algebraic approach thrive together. In the pre-1967 list, the classical treatises of Lipschitz and Bachmann are probably rarely used by modern readers who (I can't blame them) prefer to deal with more-up-to-date terminology. Artin's *Geometric Algebra* and Dieudonné's *La Géométrie des Groupes Classiques* are no doubt great books by any