constant coefficient hypoelliptic equations is not mentioned. There is no discussion of, or references for, questions of hypoellipticity or local solvability of general equations, noncoercive boundary value problems, nonlinear versions of any results or methods, pseudodifferential or Fourier integral operators. While it would be unreasonable to expect more than a very brief discussion or passing reference for most of these omissions, it is unfortunate not to have that much.

The lament of the previous paragraph is that a very good text is not still better. In his preface, Treves cites two aims: "recalling the classical material to the modern analyst, in a language he can understand," and "exploiting the [classical] material, with the wealth of examples it provides, as an introduction to the modern theories." Anyone sympathetic to these aims would do well to read the entire preface, and the book.

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Simple Noetherian Rings, by John Cozzens and Carl Faith, Cambridge Tracts in Mathematics, no. 69, Cambridge Univ. Press, New York and London, 1975, xvii + 135 pp., $12.95.

This book is concerned with a class of rings which are "simple" only in a standard technical sense. Speaking descriptively, it would be much more appropriate to entitle this material *Complicated Noetherian Rings*. Technically, a simple ring is a nonzero ring R (associative with unit, as far as this book is concerned) in which the only two-sided ideals are the two trivial ones, 0 and R. (When dealing with rings without unit, one assumes in addition that R does not have zero multiplication, i.e., $R^2 \neq 0$.) The most basic class of simple rings consists of the division rings. Although the structure of division rings is already enormously complex, one considers the division rings to be "known" in the context of general rings, and tries to relate the structure of larger classes of rings to the class of division rings in various ways. In order to be able to say much at all about simple rings in general, some chain condition is usually imposed, such as the artinian condition (any descending chain $I_1 \supseteq I_2 \supseteq \cdots$ of one-sided ideals is ultimately constant, i.e., $I_n = I_{n+1} = \cdots$ for some n) or the noetherian condition (any ascending chain $I_1 \subseteq I_2 \subseteq \cdots$ of one-sided ideals is ultimately constant).

The first (and most widely used) general structure theorem for simple rings is of course the Wedderburn-Artin Theorem: *Any simple artinian ring R is isomorphic to the ring of all $n \times n$ matrices over some division ring D, and both n and D are uniquely determined by R.* Alternatively stated, this theorem says that R is isomorphic to the endomorphism ring of a finite-dimensional vector space over D. Because of the Hopkins-Levitzki Theorem, which states that every artinian ring is also noetherian, the Wedderburn-Artin Theorem characterizes a portion of the class of simple noetherian rings. That not all simple