conclusion that the existence of the simultaneous limit always insures
the existence of the iterated limits. This conclusion is, in turn, in-
volved in the proof of the theorem on the interchangeability of order
of partial differentiation. (Fortunately, this does not invalidate the
proof, but it makes desirable further elucidation of some of the steps.)
Finally, it is stated, without proof, that the mere existence of f_{xy} and
f_{yx} is sufficient to insure their equality; but counterexamples to this
statement are known.

If it is desirable to use the intuitive idea of different modes of ap-
proach of the independent variable to its limit, the notion could
easily be put on firm ground by giving the Heine sequence definition
of a limit and stating its equivalence to the Cauchy definition. That
this equivalence is not as simple as appears on the surface is well
known, for the proof is impossible without the axiom of choice.

The chapters on infinite series, power series, and Fourier series
appealed to the reviewer as very well done. The chapter on Fourier
series contains among other topics a simple account of the Dirichlet
conditions for convergence, Parseval's equation, the complex form of
Fourier series, the asymptotic behavior of the coefficients, and the
differentiation and integration of Fourier series.

P. W. KETCHUM

Geometria Descrittiva: Lezioni Redatte per Uso Degli Studenti. By Enea
Bortolotti. Padua, Cedam, 1939. 715 pp., 500 figs. (Mimeographed.)

The term descriptive geometry has a wider meaning in Europe than
it has with us; this is especially true in Italy where the study of
geometry is an important part in the curriculum of all students of
mathematics. Moreover, the school programs include work in deter-
minants and matrices, projective and analytic geometry, and the
elements of the calculus. Students of mathematics in the universities
analogous to our undergraduates, devote all their time to the subject,
hence are taking three courses simultaneously. By the time they
reach descriptive geometry they will have had sufficient training to
allow a teacher or an author to assume an acquaintance with many
fundamental concepts.

Textbooks are ordinarily not employed at all; books written on a
specific subject are for supplementary reading, usually voluntary,
and not controlled. The students are thrown on their own at an early
stage, and many of them show a decided precosity. The books are
written for the better students who really want to learn about the
subject treated.

The book under review is divided into four parts; most of the