*Deuxième Colloque de Géométrie Algébrique.* Centre Belge de Recherches Mathématiques. Liège, Thone, and Paris, Masson, 1952. 243 pp. 2625 fr.

This book gives accounts of the talks presented at the conference held at Liège in June 1952. The contents are: *Courbes de diramation des plans multiples et tresses algébriques,* by O. Chisini; *Quelques travaux récents concernant la classification des courbes algébriques,* by L. Gauthier; *Transformations ponctuelles et transformations crémoniennes,* by M. Villa; *Sur la théorie des corps algébriques,* by E. Kähler; *Formes différentielles méromorphes sur les variétés kählériennes compactes,* by P. Dolbeault; *Problèmes résolus et non résolus de la théorie des fonctions abéliennes dans ses rapports avec la géométrie algébrique,* by F. Conforto; *Les problèmes de classification dans la théorie des surfaces algébriques irrégulières,* by A. Andreotti; *La théorie de la base pour les diviseurs sur les variétés algébriques,* by A. Néron; *La théorie des idéaux et la géométrie algébrique,* by W. Gröbner; *Quelques progrès récents dans la classification des variétés algébriques d'un espace projectif,* by F. Gaeta; *Modèles de surfaces canoniques normales de $S_3$ et de genre linéaire $11 \leq p^{(1)} \leq 17$,* by P. Burniat; *Introduction des courbes quasi irréductibles d'une surface algébrique. Application à la régularité de certains systèmes linéaires,* by L. Nollet; and *Les singularités des points de diramation isolés des surfaces multiples,* by L. Godeaux.

Most of the articles can be used to obtain a good general idea of the directions in which their respective authors have been working in the past few years. Some treat specific problems in more or less full detail while others are retrospective or provide outlines of work to appear elsewhere. A few words about some of the more interesting papers: Dolbeault's is essentially a statement of certain existence results on higher degree differential forms of second and third kind. Conforto summarizes the classical theory and some of his own work on theta functions, abelian varieties and their subvarieties, and fundamental domains for equivalence classes of Riemann matrices. Andreotti outlines his work on the classification of irregular surfaces via their natural mappings into their Albanese varieties and ideals of theta functions. Néron provides a readable outline of the main part of his important recent paper (Bull. Soc. Math. France, 1952) in which he proves Severi's theorem of the base.

M. ROSENLICHT

## BRIEF MENTION

*The theory and applications of harmonic integrals.* By W. V. D. Hodge. 2d ed. Cambridge University Press, 1952. 10+282 pp. $5.50.

The first edition (1941) was reviewed in this Bulletin, vol. 50, p. 43. The second edition incorporates some corrections; §26.3, dealing with the relation between products of forms and intersections of cycles, has been replaced by a brief account of de Rham's version of the theory. There is a bibliography of 21 papers on harmonic integrals which have appeared since 1941.

*Opere.* By L. Bianchi. Ed. by the Unione Matematica Italiana, with the assistance of the Consiglio Nazionale delle Ricerche. Vol. 1, part 1. Rome, Cremonese, 1952. 615 pp. 5000 lire.

Bianchi's works are to appear in 10 volumes. This one contains a bibliography, and papers on finite groups, algebraic equations, theory of numbers, infinite discontinuous groups, and arithmetic forms.