

PRINCETON UNIVERSITY (academic year 1921-1922).—By Professor H. B. Fine: Functions of a complex variable, three hours.—By Professor O. Veblen: Projective geometry, three hours.—By Professor J. W. Alexander: Differential equations, three hours. Professors Eisenhart and Veblen will conduct a seminar in relativity.

Professor R. Courant, of the University of Münster, has been called to the chair of mathematics at the University of Göttingen that was vacated by Professor Felix Klein on his retirement.

Professor P. R. Scott Lang, for more than forty years Regius professor of mathematics at the University of St. Andrews, has been knighted.

Professor W. W. Rankin, of the University of North Carolina, who has been on leave of absence for the last two years acting as instructor at Columbia University, has been appointed head of the department of mathematics at Agnes Scott College.

At Cornell University, Professor V. Snyder has been granted leave of absence for the academic year 1921-1922. For the second term of the year he has been awarded a subvention by the Heckscher Research Foundation for the prosecution of research on the theory of algebraic surfaces.

Professor Arthur Searle, Phillips professor of astronomy, emeritus, at Harvard University, died October 24, 1920, at the age of eighty-three years.

Dr. Alexander Pell, formerly professor of mathematics and astronomy and dean of the engineering school at the University of South Dakota, and associate professor at Armour Institute, died January 26, 1921, at the age of sixty-two years. Dr. Pell had been a member of the American Mathematical Society since 1898.

---

## NEW PUBLICATIONS.

### I. HIGHER MATHEMATICS.

ANDERSEN (A. F.), BOHR (H.) og MOLLERUP (J.). Cesàro's Summabilitetsmetode med Anvendelse paa Fourier'ske og Dirichlet'ske Rækker. Tre Foredrag holdt i Matematisk Forening (København). København, Gjellerup, 1919. 8vo. 51 + 20 + 25 pp.

BOHR (H.). See ANDERSEN (A. F.).

- BOUTROUX (P.). *L'idéal scientifique des mathématiciens*. Paris, Alcan, 1920. 16mo. 274 pp.
- BRENDEL (M.). See KLEIN (F.).
- BUHL (A.). *Géométrie et analyse des intégrales doubles*. (Scientia, No. 36.) Paris, Gauthier-Villars, 1920. 68 pp.
- CURZON (H. E. J.). *The reversal of Halphen's transformation*. London, Constable, 1920. 15 pp. 1s.
- FRAENKEL (A.). See KLEIN (F.).
- FRASER (D. C.). *Newton's interpolation formulas*. London, C. and E. Layton (published under the authority of the Institute of Actuaries), 1919. 52 pp. 1s.
- HEIJDEMAN (W. J.). *Wiskundige hoofstukken dienende als noodzakelijke inleiding tot de differentiaal- en integraalrekening voor den technicus, die de hoogere wiskunde door zelfstudie wil leeren; tevens bevattende de eigenschappen en constructies der kromme lijnen en oppervlakken, welke voor den technicus van belang zijn*. Deventer, Kluwer, 1919. 140 pp.
- KLEIN (F.), BRENDEL (M.) und SCHLESINGER (L.). *Materialien für eine wissenschaftliche Biographie von Gauss*. Heft 8: *Zahlbegriff und Algebra bei Gauss, von A. Fraenkel*. Mit einem Anhang von A. Ostrowski: *Zum ersten und vierten Gauss'schen Beweise des Fundamentalsatzes der Algebra*. Leipzig, Teubner, 1920. 8vo. 60 pp.
- LORIA (G.). *Newton*. Roma, A. F. Formiggini, 1920. 69 pp. L. 3.00
- MACH (E.). *Die Leitgedanken meiner naturwissenschaftlichen Erkenntnislehre und ihre Aufnahme durch die Zeitgenossen*. Sinnliche Elemente und naturwissenschaftliche Begriffe. Zwei Aufsätze. Leipzig, Barth, 1919. 8vo. 31 pp.
- MOLLERUP (J.). See ANDERSEN (A. F.).
- OSTROWSKI (A.). See KLEIN (F.).
- PASCAL (E.). *Lezioni di calcolo infinitesimale*. Parte 3: *Calcolo delle variazioni e delle differenze finite*. 2a edizione. (Manuali Hoepli.) Milano, Hoepli, 1918. 11 + 325 pp.
- RIABOUCHINSKY (D.). *Calcul des valeurs absolues*. Copenhagen, 1919. 119 pp.
- SCHLESINGER (L.). See KLEIN (F.).
- SCHLICK (M.). *Allgemeine Erkenntnislehre*. Berlin, Springer, 1918. 8vo. 346 pp.
- SIBIRANI (F.). See VIVANTI (G.).
- VIVANTI (G.). *Esercizi di analisi infinitesimale*. 2a edizione, accuratamente riveduta ed aumentata con la collaborazione del professore F. Sibirani. Parte 1a. Torino, Lattes, 1920. 7 + 172 pp.
- VOLK (O.). *Entwicklung der Funktionen einer komplexen Variablen nach den Funktionen des elliptischen Zylinders*. Stuttgart, Grub, 1920. 38 pp.
- WATSON (G. N.). See WHITTAKER (E. T.).
- WHITTAKER (E. T.) and WATSON (G. N.). *A course of modern analysis*. 3d edition. Cambridge, University Press, 1920. 7 + 608 pp. 40s.

WITTING (A.). Einführung in die Infinitesimalrechnung. I: Differentialrechnung. 2te Auflage. (Mathematisch-physikalische Bibliothek, Nr. 9.) Leipzig, Teubner, 1920.

## II. ELEMENTARY MATHEMATICS.

ARNOLD (E. E.). See DURELL (F.).

BINGHAM (J. A.). See HOWARD (B. H.).

CRELLE (A. L.). Rechentafeln, welche alles Multiplizieren und Dividieren mit Zahlen unter Tausend ganz ersparen, bei grösseren Zahlen aber die Rechnung erleichtern und sicherer machen. Berlin, Vereinigung wissenschaftlicher Verleger (Walter de Gruyter), 1919.

DAVISON (C.). The elements of plane geometry. Cambridge, University Press, 1920. 280 pp. 10s.

DOOLEY (W. H.). Vocational mathematics. Revised by A. Ritchie-Scott. London, Heath, 1920. 8 + 311 pp. 5s.

DURELL (F.) and ARNOLD (E. E.). A second book in algebra. Chicago, Merrill, 1920. 5 + 330 pp.

HAMILTON (S.). Hamilton's essentials of arithmetic. Lower grades, middle grades, higher grades. Chicago, American Book Company, 1920. 224 + 14, 288 + 23, 320 + 19 pp.

HOWARD (B. H.) and BINGHAM (J. A.). A school geometry. London, Hodder and Stoughton, 1920. 26 + 370 pp. 5s. 6d.

LAYNG (A. E.). Exercises in arithmetic. Arranged in two courses. London, John Murray, 1920. 230 + 31 pp. 3s. 6d.

LEVENTHAL (M. J.) and WEINER (M.). Geometry review book. New York, Review Book Company, 1920. 86 pp.

LINCOLN SCHOOL. Illustrated mathematical talks by pupils of the Lincoln School, New York City. New York, Lincoln School, 1920. 44 pp.

PICKEN (D. K.). See WADDELL (W.).

RITCHIE-SCOTT (A.). See DOOLEY (W. H.).

WADDELL (W.) and PICKEN (D. K.). A first trigonometry. Melbourne, Melville and Mullin, 1920. 7 + 78 pp.

WEINER (M.). See LEVENTHAL (M. J.).

## III. APPLIED MATHEMATICS.

ADAMS (O. S.). A study of map projections in general. (U. S. Coast and Geodetic Survey, Special Publication No. 60.) Washington, 1919. 24 pp.

APPELL (P.). *Traité de mécanique rationnelle*. Tome III: Equilibre et mouvement des milieux continus. 3e édition, entièrement refondue. Tome IV: Figures d'équilibre d'une masse fluide homogène en rotation sous l'attraction newtonienne de ses particules. Paris, Gauthier-Villars, 1920. 8vo. 7 + 646 + 297 pp. Fr. 60.00 + 30.00

ASHFORD (C. E.). Electricity and magnetism; theoretical and practical. 3d edition. London, Arnold, 1920. 12 + 303 pp. 4s. 6d.

BLACKBURN (P. P.). See WHITE (C. J.).

- BOUASSE (H.). Pendule, spirale, diapason. Tome I. Paris, Delagrave, 1920. 8vo. 26 + 476 pp.
- COTTON (E.). Cours de mécanique générale. Introduction à l'étude de la mécanique industrielle. Tome III: Unités. Travail. Dynamique du point et des systèmes. Grenoble, J. Rey, et Paris, Gauthier-Villars, 1920. 8vo. 138 pp.
- DESMARETS (M.). See MALGORN (G.).
- DINGLER (H.). Die Grundlagen der Physik. Synthetische Prinzipien der mathematischen Naturphilosophie. Berlin, Vereinigung wissenschaftlicher Verleger (Walter de Gruyter), 1919. 8vo. 15 + 157 pp.
- EILERS (G.). Am Schattenstab. Eine volkstümliche Himmelskunde in geschichtlicher Anordnung. Hamburg, Westermann, 1920. 192 pp.
- EINSTEIN (A.). Aether und Relativitäts-Theorie. Rede gehalten am 5. Mai an der Reichs-Universität zu Leiden. Berlin, Springer, 1920. 15 pp.
- ELMASSIAN (P.). L'éther pur, l'éther matériel et les trois formes fondamentales de l'énergie. Genève, Atar, 1920. 304 pp.
- GANS (R.). Einführung in die Vektoranalysis mit Anwendungen auf die mathematische Physik. 4te Auflage. Leipzig, Teubner, 1921. 4 + 118 pp.
- HAAS (A.). Das Naturbild der neuen Physik. Berlin, Vereinigung wissenschaftlicher Verleger (Walter de Gruyter), 1920. 5 + 114 pp.
- KLEEMAN (R. D.). A kinetic theory of gases and spectra. New York, Wiley, 1920. 16 + 272 pp. \$3.00
- LEROY (T.). Essai mathématique sur les prix de revient des transports par chemin de fer. Préface de G. Pereire. Paris, Gauthier-Villars, 1920. 4to. 16 + 246 pp. Fr. 30.00
- LEWIS (W. C.). A system of physical chemistry. Volume 2: Thermodynamics. 3d edition. London, Longmans, 1920. 8 + 454 pp. 15s.
- MALGORN (G.). Lexique technique anglais-français. Machines-outils, moteurs à combustion interne, électricité, constructions navales, métallurgie, etc. Avec la collaboration de M. Desmarests. Paris, Gauthier-Villars, 1920. 22 + 216 pp. Fr. 20.00
- PARK (W. E.). A treatise on airscrews. London, Chapman and Hall, 1920. 12 + 308 pp. 21s.
- PEREIRE (G.). See LEROY (T.).
- POMEY (J. B.). Introduction à la théorie des courants téléphoniques et de la radiotélégraphie. Paris, Gauthier-Villars, 1920. 8vo. 510 pp. Fr. 25.00
- STELFOX (S. H.). The laws of mechanics. A supplementary text-book. London, Methuen, 1920. 9 + 201 pp. 6s.
- WHITE (C. J.). The elements of theoretical and descriptive astronomy. 8th edition, revised by P. P. Blackburn. New York, Wiley, 1920. 11 + 309 pp. \$3.00
- WILLIAMS (K. P.). The dynamics of the airplane. (Mathematical Monographs, No. 21.) New York, Wiley, 1921. 8 + 138 pp. \$2.50
- WILLOTTE (H.). Lois mathématiques de la résistance des fluides. (Théorie de l'hélice.) Paris, Doin, 1920. 16mo. 300 pp.