had shortly before celebrated his seventieth birthday, he said that Georg Cantor's ancestors, as well as his own, came originally from Denmark, that, although he thought he and Georg Cantor were distantly related, the latter did not agree with him. After a dinner which was served in the garden in the open, the writer, having been told that it was Cantor's habit to lie down after the mid-day meal, departed.

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SHORTER NOTICES.

Les Spectres numériques. By MICHEL PETROVITCH, with a preface by EMILE BOREL. Paris, Gauthier-Villars, 1919.

THE "spectral method" of Professor Petrovitch will be understood through an example taken from the last chapter of his monograph.

Let it be required to determine the coefficients in the development of $(1 + z)^6$. We have

$$(1.01)^6 = 1.061520150601,$$

and the binomial coefficients sought appear in the decimal above, some of the coefficients being separated by zeros.

It is clear that a similar method can be used to determine any finite set of positive integers, if the integers are the coefficients in the development of a known rational integral function, and that generalizations to infinite sequences of integers are possible.

Professor Petrovitch calls the decimal above a "spectrum" of the function $(1 + z)^6$, comparing the binomial coefficients to the colored portions of the spectrum, and the zeros to the dark portions. The book, up to the last chapter, is given up to a discussion of methods for associating "spectra" with different classes of functions.

In spite of the amiable preface of Borel, nothing will be found in the work to make one feel that the author has a point of view which is likely to lead to fruitful developments. Professor Petrovitch has certain speculations, but they are not of enough merit to warrant this address to the mathematical public.

Throughout the book are scattered references to results of contemporary analysts, and these contribute a certain amount of animation to the text, although the theorems quoted lead only to trivial conclusions in regard to the matter in hand. The style of the book is sufficiently elegant, and would be worthy of a more valuable scientific production.

<div align="right">J. F. Ritt.</div>

La Part des Croyants dans les Progrès de la Science au XIXe Siècle. By Antonin Eymieu. Première partie: Dans les sciences exactes. Troisième édition. Paris, Perrin et Cie., 1920. ii + 272 pp. Price 5 francs.

This little volume of entertaining but not particularly scientific summer reading is of interest to the mathematician chiefly because of the biographical material contained in the first chapter. It had its inception in connection with an anecdote which is often told of a verbal encounter in the Chamber of Deputies some thirty years ago. M. Charles Dupuy, speaking as rapporteur de l'Instruction publique, had spoken of the fatal anæmia of the facultés catholiques which, when they entered upon scientific studies, reached at last a stage where their faith called out, "Tu n'iras pas plus loin." The remark, so the official journal of the day records, was hailed with cries of approval from the Right, at which manifestation an opponent exclaimed, "As if there had never been any Christian scholars!" To this M. Dupuy replied, amid laughter, that it would be an interesting thing to see the list.

What M. Eymieu proposed for himself some five years ago, when the first edition appeared, was to meet the challenge and to show that it was those of religious faith who made the greatest contributions to the exact sciences in the nineteenth century. He admits, however, that it is an impossibility to prepare a complete catalogue of scientists and of their religious beliefs, and so he sets about to furnish a brief list, limited to the greatest contributors to mathematics, astronomy physics, and chemistry.

In mathematics M. Eymieu has selected the names of Gauss, Cauchy, Poincaré, Lagrange, Abel, Galois, Riemann, Weierstrass, and Hermite as representing the great research scholars—"les grand initiateurs," of whom, as he says, "de l'aveu de tous les bons juges, trois . . . dominent son