## THE INAUGURATION OF THE INSTITUTE HENRI POINCARÉ IN PARIS

## BY MAURICE FRÉCHET

In November, 1928, there was formally inaugurated in Paris a new institute of mathematics. It was both the official opening of a new building and the beginning of new courses of lectures, all to be a part of the Faculty of Sciences of the University of Paris.

The building is now ready, but the internal arrangement and the furnishing will not be completed for some time. It was considered wise, however, to hold the ceremony in the building in order to attract public attention to the opening of the lectures and to the foundation of the Institute.

It was desired to express the gratitude of the University of Paris towards those who had provided the necessary means. The history of this Institute is brief. It had been noted by the International Education Board that several opportunities had led them to give very large sums of money to various universities in Europe, but that gifts to French universities had been on a much smaller scale. Noting the importance of the French Mathematical School, it was thought that helping mathematics in France was perhaps one of the best ways to help science all over the world.

The decision was taken after many consultations, in which Professor Trowbridge, then representing in Paris the International Education Board, and Professor Birkhoff as a great mathematician, took decisive part.

It was decided to ask Professor Emile Borel to draw up a plan. The plan, which was approved, creates under the name Institut Henri Poincaré a center for teaching and for research on mathematical physics and on the calculus of probabilities.

The new teaching positions have been given to three men.

The courses on *Physical Theories* will be delivered by Professor Léon Brillouin and M. Louis de Broglie (to be distinguished from physicists of the same names, both members of the Académie des Sciences). Professor Léon Brillouin has made himself known by his fundamental researches on the theory of quanta and its applications. He was called last year to expound them in several universities of the United States and Canada. Dr. Louis de Broglie is the creator of that wave mechanics which, though created only yesterday, now plays a leading part in mathematical physics, and has been the inspiration of many investigations of revolutionary nature.

Although these courses will form an important addition, those interested in theoretical physics will know that there were already important courses on this subject in Paris, among which should be mentioned those of Professor Brillouin and Professor Langevin at the Collège de France, and those of Professor Eugène Bloch and Professor Villat at the Sorbonne.

As for the calculus of probability, it had already its great exponent at the Sorbonne in Professor Emile Borel. His researches on this subject and his personal action have done much to revive in France the interest in this science which owes so much to such French scientists as Pascal, Fermat, Laplace, Poisson, Bienaymé, Cauchy, Cournot, Bertrand, Henri Poincaré.

To Professor Borel's course will now be added a new course by Maurice Fréchet, formerly professor at the University of Strasbourg. His theory of abstract spaces and functions has already made him known in America, where he was called to expound it at the University of Chicago in the summer quarter of 1924. But of late he has devoted much attention to the theory of probability, on which he published (in collaboration with Professor Halbwachs) a work entitled Le Calcul des Probabilités à la Portée de Tous.

It should be stated also that the applications of proba-

bilities to social sciences are taught in the already existing Institut de Statistique of the University of Paris.

The activities of the Institute Henri Poincaré will not be confined, however, to the new courses. It aims to be international in scope. The attendance at these courses is very cosmopolitan indeed. But the Institute will also have an international staff of lecturers. In addition to the permanent courses, single lectures or brief series of lectures will be given by distinguished scientists. Professors Vito Volterra of Rome, and de Donder of Bruxelles, have already promised their cooperation. Other engagements will soon be published.

Finally, as the ever-increasing numbers of lecturers and students at the Sorbonne called for new measures, it was decided to seize upon the opportunity and to erect a new building where not only the new courses, but all the advanced courses on mathematics will be given, and where the mathematical library will be housed. The International Education Board is to contribute one hundred thousand dollars to these expenses; Baron Edmond de Rothschild also contributed twenty-five thousand dollars, and the French Ministry for Education 30,000 francs.

It is to be hoped that some of the students and scholars who plan to complete their scientific education or to pursue their researches in Europe, will remember that there has been created in Paris, thanks chiefly to American generosity a great international scientific center for mathematical physics and the calculus of probability.

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