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Picard and Integral Equations

The theory of integral equations received a major impetus with the publication in 1900 of Ivar Fredholm's paper, showing the analogy with the solution of systems of linear equations and demonstrating the utility of the theory for the proof of existence theorems to boundary-value problems. A very rapid international reaction followed. In this paper, we examine the work of Émile Picard in this area, beginning in 1902, even before the publication of the French version of Fredholm's paper. Picard's work was particularly influential in France and Italy, and was propagated both through his own lectures and via the textbook of Lalescu.