

# COLLOQUIUM

DEPARTMENT OF MATHEMATICS AND STATISTICS  
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## Historical Perspectives on the Development of Modern Analysis IX: Fredholm, Hilbert and the Birth of Functional Analysis

### **Abstract**

One of the major developments of twentieth-century mathematics was the adaptation and generalization of the results and methods of classical analysis (analysis before 1900) to the infinite-dimensional setting. Perhaps somewhat idiosyncratically, I will call this body of mathematics Functional Analysis. This talk will discuss the origins of some of the key ideas in Functional Analysis, highlighting how they gestated in the work of Ivar Fredholm on integral equations and how they were born in David Hilbert's work on "functions of infinitely many variables".

**372 Science and Engineering Building**

**Thursday, February 21st, 2002**

**3:00 to 4:00 P.M.**

**(Refreshment at 2:30 to 3:00 P.M. in Room 368,  
Science and Engineering Building)**

**About the speaker**

B.A. from Western Kentucky University in 1972, Ph.D. from Indiana University in 1977, joined the faculty at Oakland University in 1977, where he remains to this day. Early part of his career concentrated on research in Operator Algebras and related areas of Functional Analysis, more recently has been working in applicable Partial Differential Equations. Has nurtured from the beginning an abiding interest in the History of Mathematics.