TOM ARCHIBALD, Simon Fraser University
Picard and a Galois Theory for Differential Equations

In 1882 Sophus Lie gave lectures in Paris that inspired the young Emile Picard to see if Lie's theory of transformation groups could serve in creating an analogue to Galois theory for differential equations. Working in parallel to Lie himself, Picard and his students (notable Vessiot) made valiant efforts to formulate such a theory, first of all for linear ordinary differential equations. Vessiot in fact became Lie's student in Leipzig. In this talk, we go beyond the discussions of this material by Thomas Hawkins and Armand Borel to investigate the role of Picard's work, both in the development of Lie theory.