

# Galois connections and residuation: origins and developments I

Bernard Monjardet

Centre d'Economie de la Sorbonne (University of Paris 1) and CAMS (Centre  
Analyse et Mathématique Sociale), France

**Abstract.** The equivalent notions of Galois connexions, and of residual and residuated maps occur in a great varieties of “pure” as well as “applied” mathematical theories. They explicitly appeared in the framework of lattice theory and the first of these talks is devoted to the history of their appearance and of the revealing of their links in this framework. So this talk covers more or less the period between 1940 (with the notion of polarity defined in the first edition of Birkoff’s book Lattice theory) and 1972 (with Blyth and Janowitz’s book Residuation theory), a period containing fundamental works like Öre’s 1944 paper Galois connexions or Croisot’s 1956 paper Applications résiduées.