Galois connections and residuation: origins and developments II

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Abstract. From the seventies, the uses of Galois connections (and residuated/residual maps) multiplied in applied fields. Indeed Galois connections have been several times rediscovered for one or another purpose, for instance in fuzzy set theory or aggregation problems. In this talk, we illustrate the diversity of such applications. Of course, the many developments in Galois lattices and Formal Concept Analysis, with their relation with Data Mining, will be only briefly evoked. Besides these developments, one finds, among other uses, alternative methods to study a correspondence (binary relation) between two sets, models of classification and preferences, fitting and aggregation problems.