アブストラクト:
We explain how the non-linear Galois theories of Umemura and Morikawa for extensions of differential fields and difference fields, respectively, can be unified using the language of D-module fields (D a cocommutative bialgebra). We also explain how this unified theory can be extended to arbitrary characteristic using iterative derivations. We show how our theory is related to the theory of Takeuchi, Amano and Masuoka in the case of Picard-Vessiot field extension.