

## Partial Characters and Signed Quotient Hypergroups

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*Abstract.* If  $G$  is a closed subgroup of a commutative hypergroup  $K$ , then the coset space  $K/G$  carries a quotient hypergroup structure. In this paper, we study related convolution structures on  $K/G$  coming from deformations of the quotient hypergroup structure by certain functions on  $K$  which we call partial characters with respect to  $G$ . They are usually not probability-preserving, but lead to so-called signed hypergroups on  $K/G$ . A first example is provided by the Laguerre convolution on  $[0, \infty[$ , which is interpreted as a signed quotient hypergroup convolution derived from the Heisenberg group. Moreover, signed hypergroups associated with the Gelfand pair  $(U(n, 1), U(n))$  are discussed.

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