1145-VR-939 **Lavinia Corina Ciungu*** (lavinia-ciungu@uiowa.edu), 1575 Foster Rd, Iowa City, IA 52245.
On involutive filters of pseudo-hoops. Preliminary report.

The aim of this presentation is to introduce the notion of involutive filters of pseudo-hoops, and to emphasize their role in the probability theory on these structures. A characterization of involutive pseudo-hoops is given and their properties are investigated. We also give characterizations of involutive filters of a bounded pseudo-hoop and we prove that in the case of bounded Wajsberg pseudo-hoops the notions of commutative and involutive filters coincide. One of main results consists of proving that a normal filter F of a bounded pseudo-hoop A is involutive if and only if A/F is an involutive pseudo-hoop. It is also proved that any Boolean filter of a bounded Wajsberg pseudo-hoop is involutive. The notions of state operators and state-morphism operators on pseudo-hoops are introduced and the relationship between these operators are investigated. For a bounded Wajsberg pseudo-hoop we prove that the kernel of any state operator is an involutive filter.

Keywords: Pseudo-hoop, Wajsberg pseudo-hoop, Archimedean pseudo-hoop, involutive filter, commutative filter, state operator, state-morphism

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