Intervals in subgroup lattices of locally finite groups

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Last year, M. Aschbacher formulated conjectured that certain finite lattices cannot be found as intervals in the subgroup lattices of any finite group. However, by a result of V. Repnitskii and J. Tůma, every algebraic lattice with at most countably many compact elements is isomorphic to an interval in the subgroup lattice of a countable locally finite group. In this talk we will discuss intervals in subgroup lattices of locally finite groups of any cardinality.