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Chermak-Delgado Chains in p -Groups of Small Order.

The Chermak-Delgado lattice of a finite group G is the set of all subgroups $H \leq G$ such that $|H||C_G(H)|$ is maximal. This set is a modular self-dual sublattice of the subgroup lattice of G . In this talk the speaker will provide an explicit classification of p -groups P with $|P| \leq p^5$ and such that the Chermak-Delgado lattice of P is a chain of length 1. Additionally, a classification will be shared for p -groups P with order less than or equal to p^6 and a Chermak-Delgado lattice that is a chain of length 2. (Received September 15, 2013)