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Lev M Shneerson* (1shneers@hunter.cuny.edu), Department of Mathematics and Statistics, Hunter College, 695 Park Avenue, New York, NY 10065. *On finite presentations of inverse semigroups having polynomial growth*. Preliminary report.

We study connections between rank, deficiency and types of growth in various classes of finitely presented inverse semigroups. Let m and n be positive integers and let S be a Rees quotient of a free inverse semigroup, given by an irredundant presentation with n generators and m relators. We show that if S has polynomial growth, then $m \geq n^2 - 1$ and for any fixed value of n , this lower bound for the number of relators is sharp. Some applications of this result will be considered.

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