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S. D. Cutkosky, K. Dalili* (dalilik@missouri.edu) and **O. Kashcheyeva**. *Asymptotic behavior of value semi-groups.*

Let v be a valuation dominating a noetherian local domain, let $S = \{v(r) | r \in R\}$ be its value semi-group and let G be its value group (the group obtained by appending inverses to S). The possible value groups G have been extensively studied and classified classically; the value semi-group S however is much less understood. In this talk we will briefly look at the known results classifying value groups and at some well known constraints on the value semi-groups. Then we will look at growth rate of the value semi-group and its asymptotic behavior to obtain new constraints on possible value semi-groups.

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