1138-37-80 **Alena Erchenko*** (axe930@psu.edu). *Flexibility questions in dynamical systems and their connections with geometry.*

We introduce the flexibility program proposed by A. Katok and discuss first results. We show the flexibility of the entropy with respect to the Liouville measure and topological entropy for geodesic flow on negatively curved surfaces with fixed genus and total area (joint with A. Katok). Also, we point out some restrictions which come from additionally fixing a conformal class of metrics (joint with T. Barthelmé). In both settings we point out connections with flexibility of geometric data. (Received January 30, 2018)