

1077-49-1302 **A L Dontchev*** (ald@ams.org), 416 Fourth Street, Ann Arbor, MI 48103. *Global Metric Regularity.*

We introduce a new definition of global metric regularity and associated definitions of Aubin continuity and linear openness that are equivalent to metric regularity on the same sets and with the same constant. When the sets are neighborhoods of a point in the graph of the mapping, these definitions reduce to the well studied properties at a point. We present Lyusternik-Graves type theorems in metric spaces for single-valued and set-valued perturbations, and show that they can be derived from, and some of them are even equivalent to, corresponding set-valued fixed point theorems. (Received September 19, 2011)