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Pawel Krupski and **Murat Tuncali*** (muratt@nipissingu.ca). *Maps of rank $\leq \mathfrak{m}$ revisited.*

Let $f : X \rightarrow Y$ be a function and let \mathfrak{m} be an infinite cardinal. Then we say that the rank $r(f)$ of f is $\leq \mathfrak{m}$ if

$$|\{y \in Y : |f^{-1}(y)| > 1\}| \leq \mathfrak{m}.$$

If $\mathfrak{m} = \aleph_0$ then f is of countable rank. In this talk, we present some general properties and invariants of rank $\leq \mathfrak{m}$ maps. We also show there are close relationships between them and monotone maps. Monotone maps on surfaces are approximated by countable rank monotone maps if the set of local separating points of the range space has the countable closure. (Received September 04, 2019)