On metric-related betweenness

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We discuss betweenness relations that arise naturally in the context of metric spaces. These include the usual metric betweenness of Karl Menger [1], as well as versions that make sense in the light of generalised triangle (in)equalities. Of particular interest is an ultrametric version whose betweenness behaviour contrasts significantly with Menger betweenness but which aligns strongly with the natural notion of subcontinuum betweenness amongst hereditarily indecomposable continua.

References

[1] Karl Menger, Untersuchungen über allgemeine Metrik, Math. Ann. 100 (1928), 75–163

^{*}This is joint work with Paul Bankston (Marquette University, Wisconsin).