1151-20-61 **Yulan Qing*** (yqing@math.toronto.edu), Bahen Center 6290, Math Department, Toronto, ON M6G 2L9, Canada, and **Kasra Rafi** and **Giulio Tiozzo**. *Sublinearly contracting boundaries I: CAT(0) spaces.*

To every Gromov hyperbolic space X one can associate a space at infinity called the Gromov boundary of X. This boundary is well-defined up to quasi-isometries and is a fundamental tool for studying hyperbolic groups and hyperbolic 3-manifolds. Croke and Kleiner showed that visual boundary of non-positively curved (CAT(0)) groups is not well-defined, since quasi-isometric CAT(0) spaces can have non-homeomorphic boundaries. For a proper CAT(0) space and any sublinear function, we consider a subset of the visual boundary called sublinear boundary and show that it is a QI-invariant and metrizable . This is to say, the sublinear-boundary of a CAT(0) group is well-defined. In the case of Right-angled Artin group, we show that the Poisson boundary of random walks on groups is naturally identified with the $(\sqrt{t \log t})$-boundary. This talk is based on projects with Kasra Rafi and Giulio Tiozzo. (Received August 07, 2019)