Sylvia Carlisle* (carlisle@rose-hulman.edu). *Types in the theory of \( \mathbb{R} \)-trees. Preliminary report.

An \( \mathbb{R} \)-tree is metric space such that between any two points there is a unique geodesic segment. An \( \mathbb{R} \)-tree is richly branching if the set of points with at least 3 branches of a given length is dense. We study \( \mathbb{R} \)-trees as metric structures using an appropriate continuous signature. The theory \( \mathbb{R}^{\text{rb}} \) of richly branching \( \mathbb{R} \)-trees is the model companion to the theory of \( \mathbb{R} \)-trees; it is complete, has quantifier elimination, and is stable but not superstable. Here, we discuss types and type spaces for \( \mathbb{R}^{\text{rb}} \). We describe the independence relation, canonical bases and principal types of finite tuples. We consider the d-metric on types and show that the space of 2-types over the empty set is nonseparable. (Received August 10, 2015)