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(shrey-sanadhya@uiowa.edu). *Substitution dynamical system on infinite alphabets and Bratteli diagrams*. Preliminary report.

In this work we build Bratteli-Vershik models for a certain class of substitutional dynamical systems (known as left determined substitutions) on a countable infinite alphabet. Further, we provide new versions of Rokhlin's Lemma for such substitutional dynamical systems. Using our Bratteli-Vershik model we construct invariant measures and ergodic measures (both finite and infinite). We provide examples of such systems, as well as explicit formulas for invariant and ergodic measures. (Received September 14, 2020)