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Shanna Dobson* (sdobson@calstatela.edu). *K-Theory of Diamonds*. Preliminary report.

A perfectoid space is an adic space covered by affinoid adic spaces of the form $\text{Spa}(R, R^+)$ with R perfectoid. Let Perfd be the category of perfectoid spaces. Let $\text{Perf} \subset \text{Perfd}$ be the subcategory of perfectoid spaces in characteristic p . Let \mathcal{Y} be a pro-étale sheaf on Perf . \mathcal{Y} is a diamond if \mathcal{Y} can be expressed as the quotient X/R of a perfectoid space X of characteristic p by a pro-étale equivalence relation $R \subset X \times X$ such that R is a perfectoid space with $s, t : R \rightarrow X$ pro-étale. We survey Efimov's definition of K-theory and give a preliminary outline of the K-theory of diamonds. (Received August 03, 2020)