1167-11-1     **Shanna Dobson\*** (`sdobson@calstatela.edu`), Los Angeles, CA 90032. *Efimov K-theory of Diamonds.* Preliminary report.

Motivated by Scholze and Fargues' geometrization of the Local Langlands Correspondence using perfectoid diamonds and Clausen and Scholze's work on the K-theory of adic spaces using condensed mathematics, we introduce the Efimov K-theory of diamonds. We posit a large stable $(\infty, 1)$-category of diamonds on an $(\infty, 1)$-site and discuss three potential applications of the Efimov K-theory of diamonds: to quantum gravity and reconstructing the holographic principle using diamonds and Scholze's six operations in the 'etale cohomology of diamonds; to post-quantum diamond cryptography in the form of programming AI with Efimov K-theory; and to nonlocality in perfectoid quantum physics. (Received February 14, 2021)