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Judith A. Packer*, Campus Box 395, Department of Mathematics, University of Colorado, Boulder, Boulder, CO 80309. *Projective multiresolution structures for direct limits of C^* -algebras*. Preliminary report.

Let $\{C_j\}_{j=0}^\infty$ be a nested sequence of unital C^* -algebras with the direct limit C^* -algebra \mathcal{C} preserving the unit, and let \mathcal{X} be a finitely generated (left) projective \mathcal{C} -module. We define the notion of a *projective multiresolution structure* for the pair $(\mathcal{C}, \mathcal{X})$. We give examples from the theory of noncommutative solenoids that indicate that projective multiresolution structures are the correct objects for studying equivalence bimodules between direct limit algebras. This work is joint with F. Latrémolière of the University of Denver. (Received September 11, 2014)