1024-55-45 **Marcy Barge** and **Beverly Diamond*** (diamondb@cofc.edu), Mathematics, College of Charleston, 66 George St., Charleston, SC 29424. *Cohomology in one-dimensional substitution tiling spaces.*

Anderson and Putnam showed that the cohomology of a substitution tiling space may be computed by collaring tiles to obtain a substitution which forces its border. One can then represent the tiling space as an inverse limit of an inflation and substitution map on a cellular complex formed from the collared tiles; the cohomology of the tiling space is computed as the direct limit of the homeomorphism induced on the cohomology of the complex. For one-dimensional substitution tiling spaces, we describe a modification of the Anderson-Putnam complex on collared tiles that allows for an identififcation of distinct components of the cohomology. (Received December 13, 2006)