Alexander M. Powell* (alexander.m.powell@vanderbilt.edu), Vanderbilt University, Department of Mathematics, Nashville, TN 37240, and Christopher Heil. Schauder bases of translations and modulations.

We investigate the time-frequency localization properties of Gabor systems that form Schauder bases for $L^2(\mathbb{R})$. We prove that certain versions of the classical Balian-Low theorem (BLT) for Gabor Riesz bases fail in the setting of Schauder bases, but that new weak versions of the BLT nonetheless hold. (Received February 04, 2008)