1145-42-2140 **Divyang Bhimani**, College Park, MD , and **Kasso Okoudjou*** (`kasso@mit.edu`), MIT, Department of Mathematics, Cambridge, MA. *Gabor Frames with arbitrary redundancy and Wilson tight frames in $L^2(\mathbb{R})$*. Preliminary report.

Given a Gabor system $\mathcal{G}(\varphi, \alpha, \beta)$ with general lattice parameters $\alpha, \beta > 0$, we propose a Wilson system $\mathcal{W}(\varphi, \alpha, \beta)$. Under mild conditions on φ, we show that the Gabor system $\mathcal{G}(\varphi, \alpha, \beta)$ is a tight frame with redundancy β^{-1} if and only if the Wilson system $\mathcal{W}(\varphi, \alpha, \beta)$ is a Parseval frame for $L^2(\mathbb{R})$. Examples of smooth rapidly decaying generators φ for these Wilson systems are given. (Received September 24, 2018)