1099-42-308 **Benjamin David Robinson*** (jamin.robinson@gmail.com), 815 N 52nd St, Apt 1015, Phoenix, AZ 85008, **William Moran** (wmoran@unimelb.edu.au), Level 4, 204 Lygon Street, Carlton, VIC 3053, Australia, and **Douglas Cochran** (cochran@asu.edu), Electrical Engineering Dept, P.O. Box 875706, Tempe, AZ 85287. *Some new g-frames arising from the quasi-regular representation.* Preliminary report.

In Duffin and Schaeffer's original paper on frames, the authors determined multiple sets of conditions on sequences of characters $\ldots, \chi_{-1}, \chi_0, \chi_1, \chi_2, \ldots$ on $\mathbb{R}$ such that $\left\{\chi_j|_{[-1/2,1/2)}\right\}$ form a frame for $H = L^2[-1/2, 1/2)$. For one, if the character χ_j is identified with $\omega_j \in \mathbb{R}$, $\left\{\chi_j|_{[-1/2,1/2)}\right\}$ forms a frame for H if all the differences $|\omega_j - j|$ are less than M, for some appropriately chosen small number $M > 0$, a result which is virtually identical for $\mathbb{R}^n$. In this talk we discuss the analogous result for each of one or two other connected, locally compact Lie groups G (which will involve the so-called quasi-regular representation of G). That is, we give a condition on representations $\pi_1, \pi_2, \ldots$ on G such that $\{\pi_j\}$, suitably interpreted, forms a *g-frame* for a nontrivial Hilbert subspace H of $L^2(G)$. In particular this implies a condition on $\pi_1, \pi_2, \ldots$ such that $f \in H$ is uniquely determined by $\pi_1(f), \pi_2(f), \ldots$ (where $\pi(f)$ for $f \in H$ is defined to be the operator $\int_G f(x)\pi(x)\,dx$), which condition we believe to be new. (Received February 10, 2014)