983-42-633 **Deguang Han\*** (dhan@pegasus.cc.ucf.edu), Department of Mathematics, University of Central Florida, Orlando, FL 32816. *Operator Parametrization and Tight Frame Approximations.* 

Given a projective unitary representation of a group. Then the set of all the invertible operators in the representation von Neumann algebra gives a parametrization for the set of all the frame generators of the representation. We will discuss how this result can be used to show that any frame generator of the representation has a unique best tight frame approximation. In particular, this applies to translation frames, Gabor frames and some special wavelet frames. (Received September 17, 2002)