Narjes Rashidi (Lehrstuhl A für Mathematik): 
Reproducing Subgroups of Affine Weyl-Heisenberg groups

We consider a class of subgroups of the semidirect product of the Heisenberg group and the general linear group $G = \mathbb{H}^n \rtimes \text{GL}(n, \mathbb{R})$ of the type $\mathbb{T} \times \mathbb{R}^n \times V \rtimes H$, where $V$ is subspace of $\mathbb{R}^n$. This class of subgroups contains standard wavelet transforms as well as windowed wavelet transforms, of Weyl-Heisenberg group. We consider the construction of the continuous wavelet transforms on these subgroups, with the unitary representation $\pi(x, \xi, h, z) = zT_x M_\xi D_h$.

We then give a sharp admissibility criteria for a pair $(V, H)$ that have an admissible vector. Finally, we provide a new examples of reproducing subgroups of the type $\mathbb{T} \times \mathbb{R}^n \times V \rtimes H$ in high dimensions.

Wir laden alle Interessierten herzlich ein.