DIFFERENTIAL GEOMETRY/PDE SEMINAR

Wednesday, October 6
Communications 326
3:45 pm

Smoothing estimates for families of curves in three and four dimensions

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I will discuss the boundedness on L^p and Sobolev spaces of generalized Radon transforms given by integrating over curves in $\mathbf{R}^3$ and $\mathbf{R}^4$. The emphasis will be on situations of maximal nondegeneracy and on the various geometric conditions, e.g., singularity theory or commutators of vector fields, that can be used to characterize such families of curves.