

# DECOUPLING AND RESTRICTION FOR RULED HYPERSURFACES GENERATED BY A CURVE

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In this talk, we shall address the decoupling theory and restriction theory of the ruled Euclidean hypersurfaces generated by a curve. We shall think of these surfaces as “parabolic cylinders of smoothly varying orientation” and see how much mileage this perspective attains for us. In particular, we shall achieve an effective  $\ell^2$  decoupling theorem (of optimal  $L^p$  range) and a reverse square function estimate.