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*Incidence estimates for well spaced rectangles*

We discuss estimating the overlap of thin rectangles in the plane in terms of how many rectangles clump together in fatter rectangles. This question can be seen as a generalization of the Szemerédi-Trotter theorem in incidence geometry, where straight lines are replaced by thin rectangles. Although the Szemerédi-Trotter theorem is sharp, there remain serious open problems involving these analogous questions for thin rectangles. We discuss a recent approach to the tube problem using Fourier analysis. This approach connects to decoupling and to the local smoothing problem for the wave equation.