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Scale-invariant restriction estimates for some hyperbolic surfaces

I will discuss scale-invariant Fourier restriction estimates for two hyperbolic surfaces. One is the "hyperbolic cone" in  $\mathbb{R}^4$ , a conic surface whose cross sections are hyperbolic paraboloids. The other is the one-sheet hyperboloid in  $\mathbb{R}^3$ . The geometric structure of these surfaces, especially the presence of many lines, plays a large role in the proof of the estimates. Partially joint work with Diogo Oliveira e Silva and Betsy Stovall.