Fourier frame for singular measures
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Fourier frames/exponential frames are known to exist easily for any sets with bounded positive finite Lebesgue measure. The existence of Fourier frames can also be discussed in the singular measure setting, and we call it the frame-spectral measure if it possesses a Fourier frame. In this talk, we will show that such singular measure exists and they have with only finitely many mutually orthogonal exponentials exists. We will also discuss a "translational-uniformity" is a necessary condition for frame-spectral measure to exist.