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Palle Jorgensen (jorgen@math.uiowa.edu), **Keri Kornelson*** (kkornelson@math.ou.edu) and **Karen L. Shuman** (shumank@math.grinnell.edu). *Isometries on Bernoulli measures*. Preliminary report.

We study Fourier bases on Hilbert spaces arising from Bernoulli affine iterated function systems on the real line. When the choice of orthonormal basis is not unique, there are naturally arising isometric operators on these spaces. We examine these operators, discovering information about their spectra. (Received September 12, 2010)