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J. Marshall Ash* (mash@condor.depaul.edu), DePaul University, Department of Mathematics, Chicago, IL 60614, and **Sergey Tikonov** and **James Tung**. *On spaces “close” to $L^p(\mathbb{T})$* . Preliminary report.

We consider spaces that are “close” to $L^p(\mathbb{T})$: L^p itself, the space of functions with positive Fourier coefficients that are integrable near 0, the space of functions whose Fourier coefficients are in $\ell^{p'}$, the space of functions whose Fourier coefficients $\{c_n\}$ satisfy $\sum |c_n|^p n^{p-2} < \infty$, and the Lorentz spaces $L^{p,q}$, $1 \leq q \leq \infty$. We display several relationships between these spaces. (Received August 02, 2007)