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María J. Carro, María Lorente and Francisco J. Martín-Reyes* (martin_reyes@uma.es). A counting problem in Ergodic Theory and extrapolation for one-sided weights.

The purpose of this talk is to show that, given a dynamical system $(X, \mathcal{M}, \mu, \tau)$ and 0 < q < 1, the Lorentz spaces $L^{1,q}(\mu)$ satisfy the so-called Return Times Property for the Tail contrary to what happens in the case q = 1. In fact, we consider a more general case than in previous papers since we work with a σ -finite measure μ and a transformation τ which is only Cesàro bounded. The proof uses the extrapolation theory of Rubio de Francia for one-sided weights. (Received February 22, 2016)