

1135-30-1021

Meredith Sargent* (meredithsargent@wustl.edu). *Carlson's theorem for different measures.*

We use an observation of Bohr connecting Dirichlet series in the right half plane \mathbb{C}_+ to interpret Carlson's theorem about integrals in the mean as a special case of the ergodic theorem by considering any vertical line in the half plane as an ergodic flow on the polytorus. Of particular interest is the imaginary axis because Carlson's theorem for Lebesgue measure does not hold there. In this note, we construct measures for which Carlson's theorem does hold on the imaginary axis for functions in the Dirichlet series analog of the disk algebra $\mathcal{A}(\mathbb{C}_+)$. (Received September 18, 2017)