Assume the Riemann Hypothesis (RH), and for real \( \alpha \) and \( T \geq 2 \), put

\[
F(\alpha, T) = \left( \frac{T}{2\pi} \log T \right)^{-1} \sum_{0 < \gamma \leq T, 0 < \gamma' \leq T} T^{\alpha(\gamma - \gamma')} w(\gamma - \gamma')
\]

where \( w(u) = 4/(4 + u^2) \). We know that \( F \) is real valued, even, nonnegative, and that

\[
F(\alpha) = (1 + o(1)) T^{-2\alpha} \log T + \alpha + o(1)
\]

uniformly for \( 0 \leq \alpha \leq 1 \). If \( R \in L^1(\mathbb{R}) \), then

\[
\sum_{0 < \gamma \leq T, 0 < \gamma' \leq T} \hat{R} \left( \frac{\gamma - \gamma'}{2\pi} \log T \right) w(\gamma - \gamma') = \left( \frac{T}{2\pi} \log T \right) \int_{\mathbb{R}} R(\alpha) F(\alpha) \, d\alpha.
\]

This has been used to obtain results concerning the spacing of the zeta zeros. In the past it was required that \( R(\alpha) = 0 \) when \( |\alpha| > 1 \). We note that this is overly severe: For many purposes it suffices to constrain the sign of \( R \) in this range. (Received September 21, 2017)