WEIGHTED DYADIC HARDY INEQUALITIES

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ABSTRACT. The classical Hardy inequality, i.e. that the arithmetic means of a p-summable sequence are also p-summable, with its numerous variations continues to provide motivation for mathematicians. In this talk we will make a survey of the results around the two-weighted Hardy inequality on the tree of dyadic intervals, we will discuss its connections with potential theory and some of its applications in complex and harmonic analysis. Time permitting, we will also discuss some new results. This is a joint work with N. Arcozzi, M. Levi and P. Mozolyako.