

SOME DISCRETE MODELS IN COMPLEX ANALYSIS

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ABSTRACT. It is often fruitful to work on a discrete (e.g. dyadic) analog of a problem originally posed in a different context. Sometimes, the solution of the discrete analog directly leads to the solution of the original problem. In these lectures we will see some examples related to analytic function spaces.

- (i) One complex dimension: Carleson measures for the analytic Dirichlet space vs. weighted inequalities on trees.
- (ii) Several complex dimensions: multipliers for the Drury-Arveson space vs. weighted inequalities on quotient structure for trees.
- (iii) Potential theory on the real line and beyond: classical capacity vs. capacity on the trees' boundary.