THE WELL-BEHAVED CATALAN
AND BROWNIAN AVERAGES
AND THEIR APPLICATIONS
TO REAL RESUMMATION

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Abstract

The aim of this expository paper is to introduce the well-behaved uniformizing averages, which are useful in resummation theory. These averages associate three essential, but often antithetic, properties: respecting convolution; preserving realness; reproducing lateral growth. These new objects are serviceable in real resummation and we sketch two typical applications: the unitary iteration of unitary diffeomorphisms and the real normalization of real, local, analytic, vector fields.