ENTROPYZETA MOTIVES OVER FORMAL FIELDS: AI-REGULATED LANGLANDS FLOWS, SYMBOLIC PERIOD STACKS, AND RECURSIVE HITCHIN SYSTEMS

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Abstract. We develop a new theory of entropy–zeta motives over infinite-dimensional formal power series rings with coefficients in finite fields. Beginning with the construction of entropy-weighted de Rham complexes over $\mathbb{F}_q[[t_1, t_2, \dots]]$, we define entropy–zeta cohomology, AI–differential structures, and symbolic Fourier–Langlands flows. These structures give rise to categorified entropy–Fourier motives, AI-regulated Langlands inference systems, and recursive entropy–period stacks.

We formulate entropy–Hecke operators, define a symbolic Langlands functoriality via Fourier transforms, and construct derived stacks of periodic and recursive entropy evolution. The culmination is an entropy–Hitchin system over symbolic spectral curves, encoding recursive zeta flows, AI-eigenmodules, and categorified Riemann–Hilbert–Langlands correspondences. This work opens a geometric and cohomological framework for recursive symbolic analysis, automorphic propagation, and entropy-based field structures beyond the scope of classical geometry.

Contents

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