



**University of
Zurich** ^{UZH}

Department of Economics – Neuroeconomics Seminar

March 19, 2026 - 17:00 - 18:00

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A Computational Theory of Flow

Flow is a coveted psychological state characterized by deep immersion and engagement in an activity. While its benefits for productivity and health are well-documented, a formal, mechanistic understanding of the flow-generating process remains elusive. In this talk, I will present a solution: a mathematical model of flow's computational substrates supported by empirical tests of its core predictions. At the heart of the model lies the concept of mutual information, a fundamental quantity in information theory that quantifies the strength of association between two variables. The central claim is that the mutual information between desired end states and means of attaining them, or $I(M;E)$, gives rise to flow. I will substantiate this claim with behavioral experiments demonstrating that, across multiple activities, increasing $I(M;E)$ increases flow and has important downstream benefits, including enhanced attention, enjoyment, and skilled performance.