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## Jiaxin Qiao "QFT as a set of ordinary differential equations"

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I will discuss quantum field theories (QFTs) on hyperbolic surface (i.e. Euclidean  $AdS_2$ ) with a conformal boundary condition. Correlation functions of local operators in such QFTs can be fully characterized by the QFT data: (1) scaling dimensions of boundary operators, (2) boundary operator product expansion (OPE) coefficients, and (3) boundary operator expansion (BOE) coefficients for bulk operators.

We derive a universal set of first-order ordinary differential equations (ODEs) that encode the variation of the QFT data under an infinitesimal change of a bulk relevant coupling. In principle, these ODEs can be used to follow a renormalization group (RG) flow starting from a solvable QFT into a strongly coupled phase and toward the flat-space limit. If time permits, I will also discuss the mechanism of level repulsion, which arises as a natural consequence of the ODEs.