Contribution ID: **48** Type: **not specified**

Renormalization group and quantum error correction

Thursday, 30 November 2023 15:15 (15 minutes)

It has been suggested that quantum error correction plays a significant role in the AdS/CFT correspondence. It has also been pointed out that a tensor network given by MERA can be viewed as bulk space emerging from a boundary theory through the structure of the renormalization group. Motivated by these insights, we demonstrate that the renormalization group serves as an approximate quantum error correction mechanism in scalar field theory, by considering scale dependence of vacuum wave functional and using coherent states.

Presenter: Mr NASU, Ryota (Shizuoka University)

Session Classification: Parallel Session B