

Quantum Quenches and Matrix Product States in AdS/CFT

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I will explain how matrix product states are used to describe defects in the form of e.g. domain walls or monopoles in the AdS/CFT correspondence. Overlaps between the matrix product states and eigenstates of an integrable spin chain constitute correlation functions of the AdS/CFT system and can be computed exactly. The same overlaps contain information about the time development of the chain after a quantum quench. We give examples of integrable as well as non-integrable quantum quenches of relevance in AdS/CFT.

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