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## Dynamical phase diagram of Su-Schrieffer-Heeger model

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### Abstract

In this paper, we have studied the dynamical phase diagram of the Su-Schrieffer-Heeger model using the notion of dynamical quantum phase transition in the ramped quench case. We have shown that, when the quench crosses both the critical points of the model, the phase diagram of the model includes two regions with dynamical quantum phase transition and no dynamical quantum phase transition. We have shown that if the sweep velocity is smaller than the critical value, the system shows dynamical quantum phase transition. If the quench crosses the single critical point, the system always shows the dynamical quantum phase transition.

**Keywords:** dynamical quantum phase transition, Su-Schrieffer-Heeger model

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