

# Thermodynamic Properties and Topological Phase Transitions in Condensed Matter Physics

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**Abstract:** *This paper explores the intricate relationship between thermodynamic properties and topological phase transitions in condensed matter physics. Topological phase transitions, a recent and exciting development in the field, have opened new avenues for understanding and engineering materials with unique electronic properties. This paper delves into the fundamental concepts, theoretical frameworks, and experimental implications of this interplay, shedding light on the significance of topological phase transitions in the context of thermodynamics.*

**Keywords:** Quantum phase transitions, Topological phase transitions.

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