Ioffe, Dmitry; Ott, Sébastien; Velenik, Yvan; Wachtel, Vitali
Invariance principle for a Potts interface along a wall. (English) Zbl 1450.60060
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Summary: We consider nearest-neighbour two-dimensional Potts models, with boundary conditions leading to the presence of an interface along the bottom wall of the box. We show that, after a suitable diffusive scaling, the interface weakly converges to the standard Brownian excursion.

MSC:
60K35 Interacting random processes; statistical mechanics type models; percolation theory
60F17 Functional limit theorems; invariance principles
82B20 Lattice systems (Ising, dimer, Potts, etc.) and systems on graphs arising in equilibrium statistical mechanics
82B44 Disordered systems (random Ising models, random Schrödinger operators, etc.) in equilibrium statistical mechanics

Keywords:
Potts model; random cluster model; interface; Ornstein-Zernike theory; invariance principle; Brownian excursion

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