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$\emph{\textbf{SLE}}_{\bm {\kappa}}$\, 与临界渗流的右路径概率

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Right-passage probabilities of $\emph{ \textbf{ SLE} }_{ \bm { \kappa} } $ and critical percolation

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摘要 给定上半平面内的一个固定点, 获得通弦~$SLE_{\kappa}(0\leqslant \kappa<8)$~迹穿过它右边的概率估计公式. 基于左边界概率的结果, 建立了闭单位圆内临界渗流不包含其内一个固定点的概率估计公式. 最后, 利用探索过程与~SLE_{6}~的关系, 得到了起点和终点相同的~SLE_{6}~迹与自避型路径有同样的分布.

关键词: 通弦~SLE_κ 洛纳方程   调和测度   临界渗流

Abstract： This paper derived the probability formula for a chordal SLE_{κ} trace across a given point in upper half plane $\mathbb{H}$. And on the basis of the left-passage probability, established the probability formula for a critical percolation in a closed unit circle without a given point. Finally, according to the relationship of exploration process and SLE_{6}, got that with the same starting and ending point, the trace of SLE_{6} has the same distribution of self-avoiding walk.

Key words： chrodal SLE_{κ} Loewner equation   harmonic measure   critical percolation

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