Special Issue

Percolation in the 21st Century

Message from the Guest Editor

The percolation model was introduced by Broadbent and Hammersley in the 1950s, but its antecedents can be traced back to the 19th century—namely, to the Galton–Watson process of branching theory, which originally concerned the extinction of family surnames, and the gelation theories of Flory and Stockmayer in the 1940s. The model captured the attention of physicists in the 1970s and 1980s; however, the work of Cardy and others using conformal field theory in the 1990s led to an explosion of interest among mathematicians starting around 2000, which continues today. Other notable areas of interest include percolation, explosive percolation, and percolation on complex networks. In this volume, we focus on the theory and applications of percolation and its many generalizations. This includes the fields of physics, mathematics, and engineering. We solicit papers both reviews of recent work and new developments and directions for the future.

Guest Editor

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