Randomized Distributed Decision (Invited Lecture Abstract)

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One of the main goals of the study of distributed computing concerns understanding and coping with the issue of locality. In particular, a central theme in this line of study deals with classifying problems according to their local distributed solvability and identifying the relevant parameters governing local solvability, towards establishing a computational complexity theory for locality. The talk will consider the locality of distributed *decision* problems, and focus on the question whether *randomness* helps in locally deciding distributed languages. The key issues related to this question will be illustrated via basic examples and relevant results.