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Abstracts of Short Communications and Posters

Section:

18. Teaching and Popularization of Mathematics

1991 MS Classification: 60-01
Leviatan, Talma, Tel Aviv University, and Beit Berl Teachers College, Israel
Misconceptions, fallacies, pitfalls and paradoxes in the teaching of Probability
One of the main goals of a higher education probability course should be to improve the ability of judgement under conditions of uncertainty; to develop strategies of inference; to strengthen and extend the intuitive probabilistic common sense. My experience over years of teaching probability to economics, engineering and mathematics students shows that a standard course often fails to achieve that. I have collected, categorized and tested statistically, fallacies, misconceptions, pitfalls and paradoxes, on which students typically stumble. This has produced a wide collection of probabilistic decision problems and resulted in university courses which contain, in addition to standard material, an interactive part, in which students are regularly confronted with such problems.