

Probability in Your Head

Peter Winkler, Dartmouth

By the time you've reached the last day of a conference, it's time for some fun.

Probability theory is a well-developed science, and most probability puzzles, if translated into precise logical form, could in principle be solved by machine. But the theory also provides some remarkable problem-solving tools with which we humans, using our imagination, can often find delightful shortcuts.

We'll present a series of combinatorial puzzles involving probability, which you can try to solve by taking pencil in hand and "doing the math." But as you will see, each can also be solved in your head, just by reasoning.