Designing an inductive course for probability & statistics

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Inductive teaching flips the order of traditional mathematics education. Instead of rigidly introducing concepts and theorems and then considering examples and practice problems to understand them, we start by letting students consider the problems and examples and then encourage them to come up with the relevant concepts themselves. Inductive teaching can often have a positive effect on the motivation of students to master the content of a mathematics course. In this talk I will describe our attempt to incorporate inductive teaching into our interfaculty probability and statistics courses. Mathematics is a fundamentally deductive field of study, this leads to dilemma’s on both a didactical and social level. I will consider these dilemmas in particular.

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