

**Semesterarbeit “Efficient Airplane Boarding”** (as if airlines hadn’t other problems)

You might have noticed that airlines change their policy to board an airplane every once in a while. In the early days, passengers were welcome to board at any time; or maybe business class travelers first, economy passengers later (Why is that anyway?!? Do business ticket holders prefer to be recognized as such, rather than board the plane in the much more convenient very last moment?). Some years ago most airlines adopted the let’s-board-the-plane-starting-from-the-rear policy (business class is an exception again). Not all airlines are happy with this policy though. Some recently started to print different letters on the boarding passes, and passengers are asked to board the plane when their letter is called.



What is a better policy? Can you find an even better one? Is there a “best” policy? What are the constraints for a policy to be reasonable? Does it make a difference if the plane is small or big? Two aisles or one? This Semesterarbeit has a quite open setting: You can model the problem in any sensible way, and you are free to choose your favorite style of analysis: Theoretic worst-case analysis and a study of lower bounds is OK, and so is simulation of the passengers as autonomous agents.

Skills: none

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