



- You need to find a strategy with no risk for moving furniture around in the registration room.
- The room has at most 64 slots to place furniture, at least one slot has furniture, at least one slot is empty.
- This strategy must be such that if it is applied twice, you return to the original state. It must also not have any state as a fixed point.
- The possible states of a room with  $n$  slots and  $k$  pieces of furniture can be represented as a bitstring of  $n$  bits and  $k$  ones.
- The strategy is thus a perfect matching on this set of states, if one exists.
- This is a multi-pass problem with up to 10 000 test cases per run.



The registration area at NWERC 2024.  
Photo by Maarten Sijm