

Events Organizer on Social Networks



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Events Organizer: Overview

- Scheduling
- “Online optimization”
- Ch 4 feedback

Scheduling

- 2 deadlines
- At first deadline, perform a “long” search (about 1 hour)
- Upon each decline (until second deadline), perform a “quick” search
- A given long search sets attendance constraints of next searches: we don't want searches to run concurrently
- Schedule carefully

Scheduling

- At event creation, schedule the long search 7 days before the event
- If there's already a search scheduled within a one-hour time window of the one we are trying to schedule:
 - If the existing search is planned after our search, do nothing: it will perform the search for us
 - Otherwise, schedule the search as expected and cancel the other one: our search will do all the work
- Whenever the subscription deadline is updated, reschedule
- Upon completion of a long search, check whether any user declined during the search and update the solution afterwards

“Online optimization”

- Whenever someone declines an event, we find the best replacement (if any)
- But the person now may attend another event which is exclusive with the one she just declined => up to $m - 1$ events
- Neighborhood consisting of “add” operations only (greedy), tenure of zero
- In one iteration, we find the best replacement; in $m - 1$ iterations, we confirm the user's attendance to all events
- For x declines, we reach the local optimum in $m * x$ steps