

## Pearl Diving Data for TSP Research from an Online Game

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#### Motivation

- ► Goal: collect large data set of human TSP solutions
- ► Idea: use social online game as a playful way to make people solve TSPs



Purchasable game advantages (paid with pearls earned during the game)



#### Levels

- Levels 1-8 given set of points, starting point not given
- Levels 9-16 given set of points, starting point given
- Levels 17–24 given set of points with different colors (no special instruction), starting point for some levels given

Some	problems	appear in	two	level	blocks to	compare	different	conditions.
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### Data

- Data for each completed run: level, player id, path, path length, time, used game advantages
- ► More than 2000 completed runs by more than 50 players
- Download: http://hci.uni-tuebingen.de/Datasets

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#### Use of Data

- ► Data of first trials shows comparable results to previous laboratory studies
- Additional data about development of solutions after first trial
- Specific aspects testable with respective level construction:
  Analysis of which starting points are chosen and whether results depend on choice of starting point
  - Influence of explicitly provided global features (here: regions) on solutions

