

PUBLIC LECTURE EVALUATION

Masaryk University

Faculty
Procedure field
Applicant
Lecture date
Lecture topic
Persons present
(number)
Designated evaluators
(board members)

Faculty of Informatics
Informatics
RNDr. Martin Maška, Ph.D.
24.11. 2020
The Fundamentals of Cell Tracking
25.... (see attached list of attendees)

prof. RNDr. Petr Hliněný, Ph.D
prof. Ing. Jiří Jan, CSc.
doc. RNDr. Barbora Kozlíková, Ph.D.
prof. Dr. Ing. Jan Kybic

The applicant introduced the research topic of tracking cells in a sequence of microscopic images. Given a time-lapse sequence of cells recorded, the task consists of identifying and segmenting individual cell instances and establishing their temporal and spatial relationships. The lecture defined the involved fundamental problem and the two basic approaches to its solution. Then it stressed an important role of the cell-tracking challenge, established by a multi-national team including the applicant in the past decade, for the development of good practical algorithms for cell tracking.

The talk was given in good English and demonstrated applicant's sufficient technical and presentation skills, and mainly his deep understanding of the presented area. The talk presented a basic overview of the most often applied methods but did not involve deep theory or technical details. Despite the fact that the talk was aimed as an introductory lecture for the general public not yet very familiar with the area, the presented lecture was in several parts less appealing and too complex to be easily followed by such an audience. Nevertheless, the talk provided a good overview and useful examples of the cell tracking methods used in practice and an insight into their quantitative performance evaluation.

The applicant answered several questions from the audience. Due to epidemic restrictions, the talk was delivered to the public via unrestricted online stream and a dedicated interactive Zoom meeting.

Conclusion

The lecture delivered by Martin Maška, entitled "The Fundamentals of Cell Tracking" and delivered as part of the habilitation procedure, **demonstrated** ~~– failed to demonstrate~~ sufficient scholarly qualifications and pedagogical capabilities expected of applicants participating in a habilitation procedure in the field of Informatics.

Date: 30.11. 2020

Petr Hliněný
(on behalf of the evaluation board)

