

Prague, 22/3/2024

Advisor evaluation

Advisor: Tomas Mikolov

Student: Barbora Hudcova

I have been advising Barbora over the last several years on her work that led to her PhD thesis on complex systems. This work started from her previous work on cellular automata which she has been working on during her MSc, and ultimately did advance beyond the scope of the cellular automata towards more general computational systems.

Despite the difficulties caused by the Covid crisis that started just when Barbora was beginning her PhD studies, she was able to keep a good pace and publish regularly her work. She started exploring the more empirical area of complex systems within the Artificial Life community where she published her first papers and did even co-organize some of the events. After the Covid situation improved, Barbora started quickly exploring possibilities for international cooperation on her research topics and arranged several research visits to the Oslo Metropolitan University where she started collaborations with Stefano Nichele and his students. Further, she started exploring more theoretical side of the complex systems research when visiting Lenka Zdeborova's group in Lausanne which lead to further publications.

I consider the research area of complex systems to be both exciting and very difficult to work on due to huge amount of prior work that spans decades of research in various, often disconnected research communities. Despite these challenges, I find Barbora's contributions to be very exciting and systematic at the same time, her work is opening new research directions and I'm looking forward to see her future developments.

To summarize, Barbora has been doing great in all the areas of her PhD studies: she has a very solid publication record, she executes the projects independently, she has done three internships abroad that lead to collaboration with researchers from other institutions, she has been active in teaching and organization of research events. Thus, I fully support awarding her the PhD title.

Tomas Mikolov
Advisor