serie přednášek
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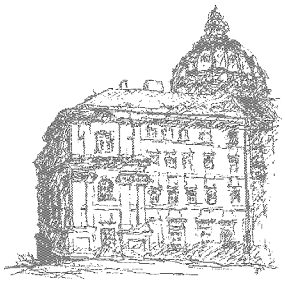

ARTIFICIAL INTELLIGENCE GOES ALL-IN: COMPUTERS PLAYING POKER

Matej Moravčík and Martin Schmid

(KAM, MFF UK)

4. dubna 2017
14:00 hodin
posluchárna S5, 2. poschodí
Malostranské nám. 25
118 00 Praha 1

Katedra aplikované matematiky MFF UK

Announcement of a lecture series

We are glad to announce a new series of distinguished Colloquia of the Department of Applied Mathematics, Charles University (KAM MFF UK) called 'KAM: Beyond Horizon' where the speakers will also share with us their views on future development of their field.

It is my great pleasure to announce that the first KAM: Beyond Horizon Colloquium is held on **Tuesday April 4th at 2 p.m. in Malá Strana building (Malostranské nám. 25, 11800 Praha), room S5.** We will hear

Matej Moravčík and Martin Schmid

speaking on

Artificial Intelligence Goes All-In: Computers playing poker

An accompanying lecture is held already on **Monday March 27 at 3.40 p.m. in S5.**

Professor Michael Bowling
(head of Computer Poker Research Group of University of Alberta)

Computers playing poker

Martin Loebl

Matej Moravčík and Martin Schmid

(KAM, MFF UK)

ARTIFICIAL INTELLIGENCE GOES ALL-IN: COMPUTERS PLAYING POKER

Abstract. Artificial intelligence has seen several breakthroughs in recent years, with games often serving as milestones. A common feature of these games is that players have perfect information. Poker is the quintessential game of imperfect information, and a longstanding challenge problem in artificial intelligence. Imperfect information games promise better real world applications, but require more complex reasoning and algorithms. We introduce DeepStack, a breakthrough algorithm for imperfect information settings. DeepStack can be thought of as a 'local search' algorithm for imperfect information games, feat long thought to be impossible. We will describe more than two decades long research on large imperfect information games, and explain why previous abstraction based approaches failed and contrast DeepStack to the local search algorithm for perfect information games.

Michael Bowling

(University of Alberta)

COMPUTERS PLAYING POKER