Combinatorial games

**Doctoral School:** Doctoral School of Computer Science  
**Institute:** University of Szeged  
**Supervisor:** András Pluhár

**Topic Description:** Combinatorial games are an important branch of both mathematics and computer science. One of its basic methods is the use of weight functions and the derandomization of algorithms. In the recent years there was a huge progress in the theory of biased and accelerated games, and one can expect the continuation of this trend. The main field of research is the graph games. Some of those: variations of degree games, and diameter games, achievement of pseudo-random graphs etc. A relatively new and promising area is the so-called Choser-Picker games; namely to find classes for which Beck's conjecture holds. Within this the computer aided solution of classical games is intriguing (variants of k-in-a-row, Hales-Jewett games, torus games etc) in the original Maker-Breaker and in the Choser-Picker sense.

további elvárások:  
Research topic for foreign applicants.

**Admissible number of students:** 1  
**Deadline for applications:** 2016-09-30

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