VISITING PROFESSOR LECTURE

Title: **Stable Marriage Problem**

Date and location: **3rd of October, 2019 at 13:00 (room U2)**

Abstract:
The Stable Marriage Problem is widely studied in mathematics, economics and computer science; it consists of searching for algorithms that can find a stable matching between two sets of elements given a set of preferences for each element. More specifically: given a group with the same number of women and men and each of them strictly ranks all of the members of the opposite sex by preference, we want to find an algorithm that can produce a stable matching, where no couple would break-off the marriage because nobody could do better, i.e., there is no man and woman who symmetrically prefer each other over their partners. David Gale and Lloyd Shapley proved, in 1962, that it is always possible to solve the Stable Marriage Problem. In this short course we probe the stable marriage problem and its variants as a rich source of problems and ideas that illustrate both the design and analysis of efficient algorithms. In 2012, the Nobel Prize in Economics was awarded to Shapley and Alvin Roth for the theory of stable allocations and the practice of market design.

Short biography:
László Szabó is an associate professor at Eötvös Loránd University, Budapest, Hungary. He offers courses on algorithms and their applications in BSc, MSc and PhD levels. He is a frequent visitor of European universities under CEEPUS and ERASMUS+ programmes. His research interests are in discrete and computational geometry, discrete mathematics and algorithms.