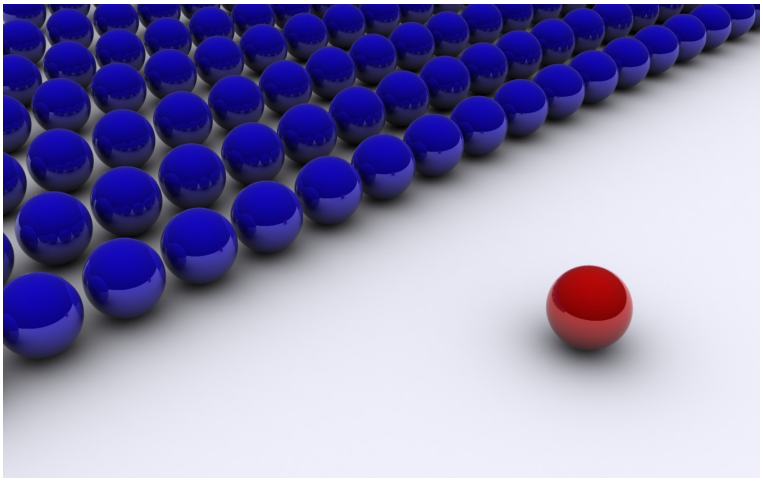
22
марта
вторник

Коллоквиум факультета компьютерных наук НИУ ВШЭ

Совместное заседание с межкафедральным семинаром МФТИ по дискретной математике



Mate Vizer

Renyi Institute Budapest

Finding a majority ball with majority answers

Suppose we are given a set of n balls $\{b_1, \ldots, b_n\}$ each colored either red or blue in some way unknown to us. To find out some information about the colors, we can query any triple of balls. As an answer to such a query we obtain (the index of) a *majority ball*, that is, a ball whose color is the same as the color of another ball from the triple. Our goal is to find a *non-minority ball*, that is, a ball whose color occurs at least $n/2$ times among the n balls. We show that the minimum number of queries needed to solve this problem is $\Theta(n)$ in the adaptive case and $\Theta(n^3)$ in the non-adaptive case. We also consider some related problems.

This is a joint work with D. Gerbner, B. Keszegh, D. Palvolgyi, B. Patkos and G Wiener.

22 марта, 18:10-19:30
Кочновский проезд, 3
Лекционный зал Декарт, 3 этаж

Заказать пропуск на проход в здание можно на computerscience@hse.ru