

## Computer Science Seminar

### *A characterization of functions with vanishing averages over products of disjoint sets*

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**Abstract:** Given  $\alpha_1, \dots, \alpha_m \in (0, 1)$  we characterize all integrable complex functions  $f$  on  $[0, 1]^m$  satisfying  $\int_{A_1 \times \dots \times A_m} f = 0$  for any collection of disjoint sets  $A_1, \dots, A_m \subseteq [0, 1]$  of respective measures  $\alpha_1, \dots, \alpha_m$ .

We use this characterization to answer a few conjectures from S. Janson and V. Sos: More on quasi-random graphs, subgraph counts and graph limits.

The talk is based on joint work with Hamed Hatami and Yaqiao Li.

Monday, March 16 at 3:00 PM in SEO 427