Summary of the recitation on 11. 12. 2007

- We saw an example illustrating the proof of a lemma from the lecture: $\forall s \in \mathbb{N}\ \forall d_0 > 0\ \forall \Delta \in \mathbb{N}\ \exists \varepsilon_0 > 0\ \exists n_0$ such that if a graph G has an ε_0-regular partition into blocks of size at least n_0, and the partition's regularity graph of threshold density d_0 contains a subgraph H with maximum degree Δ, then G contains $H^{(s)}$.
- We solved the exercise stated at the end of last week's recitation: Let $d \in [0, 1]$ be a constant, let $\varepsilon > 0$ be sufficiently small with respect to d. Let (X, Y) be two parts of an ε-regular bipartite graph with density d. Show that the number of pairs (x, x'), $x, x' \in X$, such that x and x' have less than $(d - \varepsilon)^2|Y|$ common neighbours in Y is at most $2\varepsilon|X|^2$.