FYP topics 2011-2012

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Topics

- Exploring regularity lemma

- Scrabble: Man vs Machine

- Self proposed topics

Scrabble: Man vs Machine

- Aim: To design and implement an algorithm that allows people to play scrabble with machines

- Background: This years FYP

  - http://wunlung.no-ip.info/Scrabble/s4.5

- To adapt this into a man vs machine

Regularity Lemma

- A famous theorem about dense bipartite graphs

- Theorem (Szemeredi '75): Any dense bipartite graph V1 x V2 can "essentially" be partitioned into finite components such that each component is regular (pseudo-random)

Question

- Theorem ? Any dense bipartite graph V1 x V2 can "essentially" be partitioned into finite components such that each component is regular

- Want to relax dense -> log-dense

- Can play around with finite to dominant exponential

Self-proposed topics

- My interests:

    - Mathematics $\cap$ Engineering

- Mathematics: Analysis, probability, combinatorics