



Final project proposal

Type	Undergraduate
Title	<i>Gambling and Data Compression</i>
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Department / Group	
Department of Theoretical Foundation of Informatics	
Topic(s)	
Information Theory	
Project can start from	01.04.2013
Project duration	4 months
Short description	
<p>Although information theory and gambling seem to be unrelated, there is strong duality between the growth rate of investment (in a horse race, for example) and the entropy rate of the horse race. Namely, the sum of the growth rate and the entropy rate is a constant. In the process of proving this, can be shown that the financial value of side information is equal to the mutual information between the horse race and the side information.</p> <p>The student will have to study and research this problem and write a report about this research. It is going to be an individual activity.</p> <p>No need of any kind of specialized lab equipment.</p>	
Results and assessment	
The student needs to write a report and give a presentation of a project.	
Other (additional) information	