

נושאים מתקדמים נושאים מתקדמים בבדיקת תכונות Property Testing of Boolean Functions 236602

מרצה:	נאדר בשותי
דרישות קדם:	הסתברות + אלגברה מודרנית
יום ג 16:30-18:30	

Property testing algorithms are used to decide if some mathematical object (such as a graph or a boolean function) has a "global" property, or is "far" from having this property, using only a small number of "local" queries to the object.

For example, the following promise problem admits an algorithm whose query complexity is independent of the instance size (for an arbitrary constant $\epsilon > 0$):

"Given a Boolean function $f: \{0,1\}^n \rightarrow \{0,1\}$, decide if f is linear function, or f is ϵ -far from any linear function (that is, changing the value of the function in $\epsilon 2^n$ points cannot make it linear)

תאור הקורס

- Learning and Testing variable, literal
- Fourier Transform
- Distribution-free testing and testing literals
- Distribution-free testing linear functions and Junta
- Testing Monotone Functions
- Learning and Testing Concise Presentations
- Lower Bounds for learning and testing

% 100

דרישות הקורס
בוהן ותרגילי בית