

המחלקה למתמטיקה, בן-גוריון

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## הסתברות ותורה ארגודית

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ביום רביעי, 12 ביולי, 2017

בשעה 11:00 – 12:00

ב-101 Math

ההרצאה

### Devaney Of Sense In Chaos of Definition

חינתן על-ידי

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**תקציר:** Devaney's chaos of definition is one of the most popular and widely known. A continuous map  $f$  from a compact metric space  $(X, d)$  to itself is chaotic if it satisfies the following conditions: (1)  $f$  is transitive, (2)  $f$  has dense periodic points, and (3)  $f$  is sensitive to initial conditions. In this paper, we show that (1) and (2) imply (3) and (1) and (3) imply (2). We also show that (1) and (3) imply (2) and (2) and (3) imply (1). We will show that  $R$  implies transitivity in an interval for continuous maps. We will show that transitivity implies chaos, and that chaos implies transitivity. It follows that Devaney's definition of chaos is equivalent to the definition of chaos in an interval. We will give some examples to note that there are no other trivialities in Devaney's definition.

אנא שימו לב לשינוי ביום ושעה!