

המחלקה למתמטיקה, בן-גוריון

קולוקוויום

ביום שלישי, 3 במאי, 2016

בשעה 14:30 – 15:30

ב-101 Math

ההרצאה

and calculus stochastic between Interplays inequalities geometric

חינתן על-ידי

(Weizmann) Eldan Ronen

תקציר: In this talk, we will try to illustrate the potential of stochastic calculus focusing on the nature of geometric inequalities. We'll discuss the Ornstein-Uhlenbeck process and its related bounds, as well as the first two proofs of the Ito calculus. The convolution operator, which we rely heavily on, is a sharp bound for the stability of Gaussian noise (which is a consequence of the isoperimetric inequality). The generalization of Borell's theorem (which concerns the regularization of functions L_1) provides a second answer to the question of Talagrand's concentration inequalities for log-concave measures.