

המחלקה למתמטיקה, בן-גוריון

קולוקוויום

ביום שלישי, 31 בדצמבר, 2019

בשעה 14:30 – 15:30

בMath-101

ההרצאה

mathematics bicycle of Flavors

חינתן על-ידי

University) State (Penn Tabachnikov Sergei

תקציר: This talk concerns a naive model of bicycle motion: a segment of fixed length that can move so that the velocity of the rear end is always aligned with the segment. Surprisingly, the integrable completely including research, of areas several with connections has and upon: touch to hope I that problems of sampler a is Here systems. The (1 trajectory of the front wheel and the initial position of the bicycle map monodromy the position; terminal its and motion its determine uniquely Moebius a is mapping This arises. one terminal the to position initial the sending dynamical and geometrical various has that fact remarkable a transformation, consequences. The (2 wheel track and choice of direction of motion uniquely yields opposite, the to direction the changing track; wheel front the determine (Backlund, bicycle the by related are tracks front two These track. front another

on system dynamical time discrete a defines which correspondence, Darboux)
 related closely is it and integrable completely is system This curves. of space the
 filament the system, dynamical integrable completely studied, well another, with
 equation. induction) local ring, smoke binormal, (a.k.a
 the way which tell one can bicycle, a of tracks front and rear the Given (3
 of description The cannot. one sometimes but can, one Usually, went? bicycle
 Ulam's with related intimately problem, open an is tracks tire ambiguous these
 body only the ball round the is two): dimension (in theory flotation in problem
 the to related also is problem This positions? all in equilibrium in floats that
 the that out turns It kind. special a of field magnetic a in charge a of motion
 equation. filament the of version planar the of solitons are solutions known