

Department of Mathematics, BGU

---

---

# BGU Probability and Ergodic Theory (PET) seminar

---

---

*On Thursday, December ,24 2020*

*At 11:10 – 12:00*

*In Online*

Zemer Kosloff (The Hebrew University)

will talk about

## **On the local limit theorem in dynamical systems**

Abstract: In ,1987 Burton and Denker proved the remarkable result that in every aperiodic dynamical system (including irrational rotations for example) there is a square integrable, zero mean function such that its corresponding time series satisfies a CLT. Subsequently, Volny showed that one can find a function which satisfies the strong (almost sure) invariance principle. All these constructions resulted in a non-lattice distribution.

In a joint work with Dalibor Volny we show that there exists an integer valued cocycle which satisfies the local limit theorem.

**Please Note the Unusual Place!**