



# 수 학 과 세 미 나

<강연 II >

1. 일시 : 2017년 08월 03일 (목) 오후 01:50 ~ 02:30
2. 장소 : 아산이학관 516호
3. 연사 : 최재용 박사 (University of Guam)
4. 제목 : Randomly Perturbed Ergodic Averages

5. 초록

The Ergodic Theorem talks about the convergence of time averages of systems. The pointwise Ergodic Theorem states that the time averages converge to the space averages almost everywhere, for any integrable function. When we consider in continuous time, because of instrumental limitations, time measurements cannot be taken exactly at any instant of time. Therefore, instead of dealing with averages along arithmetic sequences, in applications one has a smooth average around the time of observation. That is, we study pointwise convergence of ergodic averages along randomly perturbed sequences. The results are obtained by providing uniform bounds of trigonometrical functions which yield a bound on a square function for the averages along the randomly perturbed sequence and a variational inequality for averages with additional smoothing properties.

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