

제 13차 통계물리 Workshop

2005년 8월 8일(월)~10일(수)

경기대 호연관 세미나실

주최 : 한국물리학회 통계물리분과

후원 : 경기대, APCTP

2. 세부 발표 일정표

8월 8일 (월)

13:10 - 14:22

좌장 박형규

G1	날알 가뭇기에서 에너지 누설의 보편성	*홍종배, 방종현
G2	Prey-Flock Deformation in Escaping from a predator's Attack	J. H. Park, S. H. Lee, T. S. Chon and *H. K Pak
G3	Stochastic Cellular Automata Modeling on Biofilm Growth in Allelopathy	S. H. Lee, H. K. Choi, J. H. Park, H. K. Pak, *T. S. Chon
G4	Particle Size Measurement by using the Light scattering and Dielectric Spectroscopy Method	Jeong-Ah Seo, Hyun-Joung Kwon, Hyung Kook Kim, Yooh-Hwae Hwang
G5	Study of Brazil Nut Problem and Reverse Brazil Nut Problem	Yongsoo Seo, Chaeyeon Song, H. K. Pak
G6	Bifurcations of the Galerkin-Truncated Complex Ginzburg-Landau Equation	Seung Ki Baek and Hie-tae Moon

14:40 - 15:52

좌장 이상훈

G7	Rotation of Irregularly shaped Multi-Lamellar Vesicles using Optical Tweezer	Chung-il Ha, Haeng Sub Wi, Hyuk Kyu Pak
G8	Statistical properties of the returns of stock prices of International Markets	미상
G9	Waiting Time Distribution of Stock-market Index	*Jae Woo Lee, kyoung Eun Lee, Per Arne Rikvold
G10	Eigenvalue-Matching Renormalization-Group Analysis of Tricritical Behavior in Unidirectionally Coupled Maps	*Woochang Lim, Sang-Yoon Kim
G11	Effect of the Parameter Mismatch on Partial Synchronization in Coupled Chaotic Systems	*Woochang Lim, Sang-Yoon Kim
G12	The analysis of volatility correlation behavior using a generalized detrended fluctuation analysis(DFA)	전우철, 김승환

Eigenvalue-Matching Renormalization-Group Analysis of Tricritical Behavior in Unidirectionally Coupled Maps **Woochang Lim, Sang-Yoon Kim (강원대)*

We study the scaling behavior in two unidirectionally coupled one-dimensional maps near tricritical points which lie at ends of Feigenbaum critical lines and near edges of the complicated parts of the boundary of chaos. Note that both period-doubling cascades to chaos and multistability (associated with saddle-node bifurcations) occur in any neighborhood of the tricritical point. For this tricritical case, the response subsystem exhibits a type of non-Feigenbaum codimension-2 scaling behavior, while the drive subsystem is in a periodic state. To analyze the tricritical behavior, we develop an eigenvalue-matching renormalization-group (RG) method, and obtain the scaling factors. These RG results agree well with those of previous works.