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been discovered. Reappearance of KAM tori has been observed for $z > 3$. An "inverse residue criterion" is introduced to determine the reappearance point. We have also studied the scaling behavior at the disappearance and reappearance points. The scaling exponents are found to vary with z for $2 < z < 3$, but are independent of z for $z > 3$.

F-3

Behavior of Invariant Circles in Dissipative Standard-like Maps.

Sang-Yoon Kim (Kangwon Nat'l Univ.). We study the behavior of invariant circles in a family of "dissipative standard-like maps" in which the nonlinear function is a "sine-like" function with a parameter z . The inverse of the parameter z denotes the "distance" from the sine function. A "residue criterion" is introduced to locate the disappearance points and reappearance points of invariant circles. Reappearance of invariant circles is observed when z is sufficiently small. This reappearance phenomena can be also explained in terms of "resonance deoverlapping". The parameter scaling behavior and orbital scaling behavior near the most rarefied region are also studied. The scaling factors are the same as those in the circle maps with cubic inflection points.

F-4

True self-avoiding walks on a percolation cluster.

Sang Bub Lee (Kyungpook Nat'l Univ.). We investigate by Monte Carlo simulations the critical behavior of true self-avoiding walks on a percolation cluster performed very close to percolation threshold. Specifically, we generate the true self-avoiding walks on a site-percolated "incipient" infinite cluster which spans the lattice in both directions for various values of self-avoidance parameter $g \geq 0$. We found that such walks exhibit the critical behavior different from that of ordinary self-avoiding walks and also from that of random walks with no constraint. The Flory exponent obtained was about 0.43 for all $g > 0$, which agrees well with the Flory-type formula suggested by Rammal.¹

1. R. Rammal, J. Stat. Phys. 36, 547 (1984).