



UNIVERSITY OF ROCHESTER

Department of Mathematics Colloquium Series

ABSTRACT

One can consider the function $\phi_a(n)$, when integers a, n are coprime, which is the order of a in the multiplicative group mod n . Locally this function appears fairly chaotic, for example $\phi_2(49)=21$, $\phi_2(51)=8$, $\phi_2(53)=52$. In fact recently the Russian mathematician V. I. Arnold has conjectured that the order function is connected with a chaotic dynamical system. One might think that averaging would take care of local chaos, but we shall see that a certain amount of chaos persists.

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Order and Chaos

Thursday, April 16, 3:30–4:30 p.m.

Computer Studies Building

Room 209