

1058-37-30

Piotr Oprocha* (oprocha@agh.edu.pl), Departamento de Matematicas, Universidad de Murcia, Campus de Espinardo, 30100 Murcia, Spain, and **Paweł Wilczyński** (pawel.wilczynski@uj.edu.pl), Institute of Mathematics, Jagiellonian University, ul. Łojasiewicza 6, 30-348 Kraków, Poland. *Factor maps and chaos.*

Let X, Y be compact metric spaces, let $f \in C(X), g \in C(Y)$ be continuous self-mappings and $\pi: X \rightarrow Y$ be a factor map between f and g .

In this talk we will present sufficient conditions on π which allow to transfer chaotic dynamics from g to f (we will mainly focus on distributional chaos and ω -chaos).

We will also comment how geometric approach (more specifically, the method of isolating segments) may help in the construction of such a π . As a testing ground, we will use Poincaré maps for the perturbations of the planar ODE of the type

$$\dot{z} = (1 + e^{ikt}|z|^2) \bar{z}.$$

(Received December 20, 2009)