

Dynamical Systems Seminar at IMPAN,  
Monday 23 May, 2011, 13:45 – 15:15 (new time !!!),  
lecture room 106.

Speaker: Krzysztof Baranski (MIMUW)

Title: On the dimension of graphs for some class of Weierstrass-type functions

Abstract: We determine the Hausdorff and box dimension of the fractal graphs for a general class of Weierstrass-type functions of the form  $f(x) = \sum_{n=1}^{\infty} a_n g(b_n x + \theta_n)$ , where  $g$  is a periodic Lipschitz real function and  $a_{n+1}/a_n \rightarrow 0$ ,  $b_{n+1}/b_n \rightarrow \infty$  as  $n \rightarrow \infty$ . Moreover, for any  $H, B \in [1, 2]$ ,  $H \leq B$  we provide examples of such functions with  $\dim_H(\text{graph} f) = \underline{\dim}_B(\text{graph} f) = H$ ,  $\overline{\dim}_B(\text{graph} f) = B$ .

Everybody is cordially invited,  
Feliks Przytycki & Michal Rams