



**WYDZIAŁ MATEMATYCZNO – FIZYCZNY**  
**Instytut Matematyki**

Zaprasza na wykład pod tytułem:

**Existence and constructions of  
curves over finite fields with  
many rational points**

który wygłosi:

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Let  $C$  be an irreducible non-singular projective curve over a finite field  $F_q$ . It is called "a curve with many rational points" if its number of rational points close to  $N_g(q)$ , where  $g$  is genus of the curve  $C$ . In this talk we consider problems of existence and constructions of such curves. In particular, we will give overview of various methods of improvement of the Hasse-Weil bound (analogy of the Riemann hypothesis for curves over finite fields). We will also consider a solution of these problems for genus 1, 2 and a partial solution for genus 3. At the second part of the talk, my improvement of the Hasse-Weil-Serre bound for curves of low genera and some construction of optimal curves of genus 3 over finite fields with certain discriminant will be presented.

Wykład odbędzie się **11 czerwca 2012 r.** (poniedziałek)  
o godz. **16.00** w sali 212  
w budynku Wydziału Matematyczno – Fizycznego.