



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

Zaprasza na wykład pod tytułem:

**Abelian varieties with  
complex multiplication and  
their first truncated  
Barsotti-Tate group schemes**  
który wygłosi:

**prof. Alexey Zaytsev**

Uniwersytet w Kaliningradzie

Let  $A$  be an abelian variety over a number field  $L$  with complex multiplication by the full ring of integers  $O_K$  for some CM field  $K$ . If  $A$  has a good reduction at a prime ideal  $S$  in  $L$  then  $A \bmod S$  is an abelian variety over a finite field of characteristic  $p$ . In this talk, we will study a correspondence between the decomposition of ideal  $pO_K$  into prime ideals (unramified case) and the decomposition of the first truncated Barsotti-Tate group scheme  $(A \bmod S)[p]$ . We will try to understand  $p$ -torsion points of the abelian variety  $(A \bmod S)$  (as a group scheme, i.e. in functorial sense) from two points of view, algebraic number theory and arithmetic geometry. In addition, I will discuss a moduli problem of abelian varieties up to isogeny.

Wykład odbędzie się **13 czerwca 2012 r.** (środa)  
o godz. **16.00** w sali 212  
w budynku Wydziału Matematyczno – Fizycznego.