Status report on $\tau \to 3\mu$ and $B \to \phi \phi K$

Marcin Chrząszcz, Alberto Lusiani

Institute of Nuclear Physics PAN

2 June 2012



- Twoards Monte Carlo Production
- More signal Simulations
- Cloud computing



Twoards Monte Carlo Production

- MC Signal for both channels is simulated. For this we got 160 CPUs avaible for us 24/7.
- Simulated 10M for each channel: $\tau \to 3\mu$, $\tau \to 2\mu e$, $\tau \to 2e\mu$, $\tau \to 3e$, $B \to \phi \phi K$.
- Applied 15th may -> got a computing grant. 100k computing hours.
 Zeus cluster is 88th in the world.
- \bullet Perfect for simulating large background samples. First estimation, we need $3\ 10^9$ events.
- Got assurence that if we need more we will get it.
- Problem with FastSim =(. Turns out that we were lucky.



More signal Simulations

- Currently we have signal with flate phase space.
- We got in contact with Z.Was, who is autor of tauola. He is developing a new version of tauola for Belle. With Alberto we plane to write LFV in that version of TAUOLA and include it in SuperB soft.
- After we have it we will produce more signal with different models.
- Study the behaviour of the detector.



Cloud computing

- One can make your own farms by web interface
- Batch system included
- User friendly. Elastic IPs. Group spaces.







