

LMU – Cluster Universe
Stefan Rummel

Power supply - Organisation

**7th International meeting on DEPFET
detectors**

6.02.11-9.02.11 Bonn





- Commercial solution
- Last funding period and lessons learned
- Next steps



- Startup meeting in Ringberg 05/09 we decided to look into two directions:
 - commercial solutions
 - in house development
- Commercial PS-System: “Wiener MPOD”
 - 1) #Modules = #Channels/#(Channels per module)
 - 2) Noise not satisfactory
 - 3) Regulation over 15m possible “slow mode”, performance not known
 - 4) DEPFET specific issues not incorporated
 - 5) ~230kE
- Contact to second company (TEXICO) is established, no offer yet available
 - MPOD system would need further investigations – test system needed (~10k), manpower
 - Outcome not clear
 - Still need to pursue our custom solution



- Application for Power Supply development in the (mid term of the) last BMBF funding period was not successful
- Concern: Why don't we buy an “off the shelf” PS system?
- First quotation is available – with the mentioned issues
- Collaboration should make a decision if we still want to pursue both approaches or to drop one

1) Since Ringberg we were able to develop a prototype regulator which is stable with long cables and satisfies our needs with respect to transient-response, noise and DC-precision

2) Timeline for our development:

- Multichannel prototype is in the pipeline (till March 11)
- Full scale prototype (end of this year)
- No major show stopper observed

3) Manpower situation @ LMU (also responsibilities for Kapton, PP):

- Stefan Rummel (100%)
- Andreas Seiler (70%)
- Need assistance by Designer
→ Interest from Krakow Group

4) LMU recommendation: Pursue custom made solution and drop the "off the shelf approach"