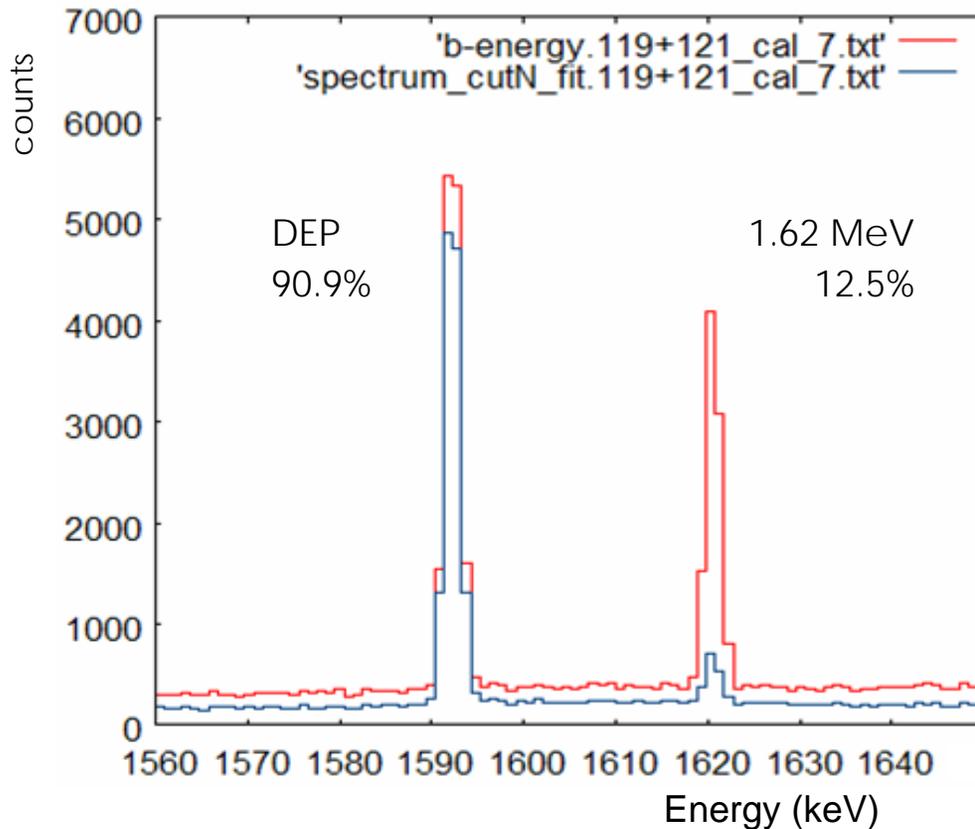


Status of the BEGe Project

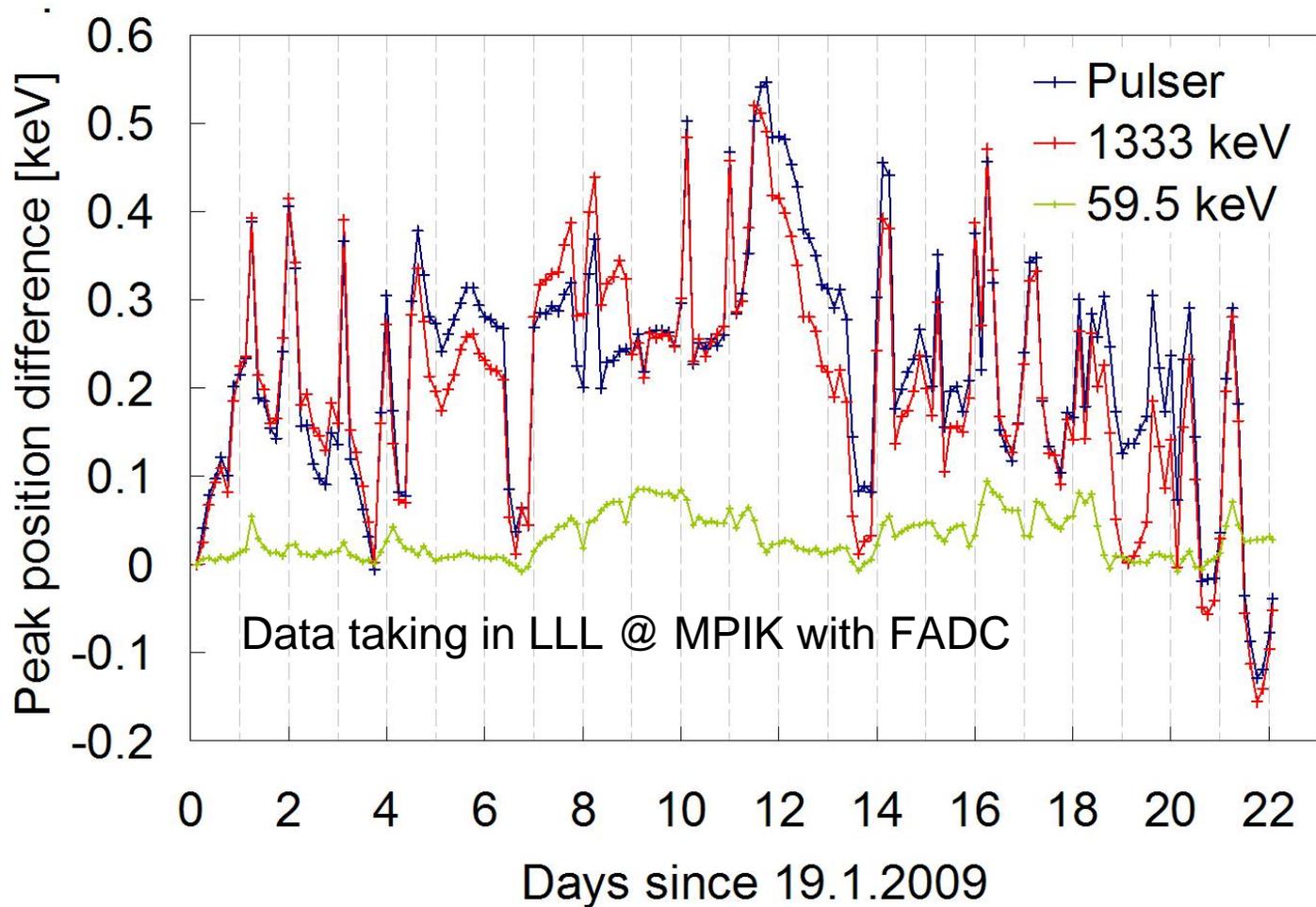
Stefan Schönert
on behalf of the team

Reminder: Dusan's report at last meeting

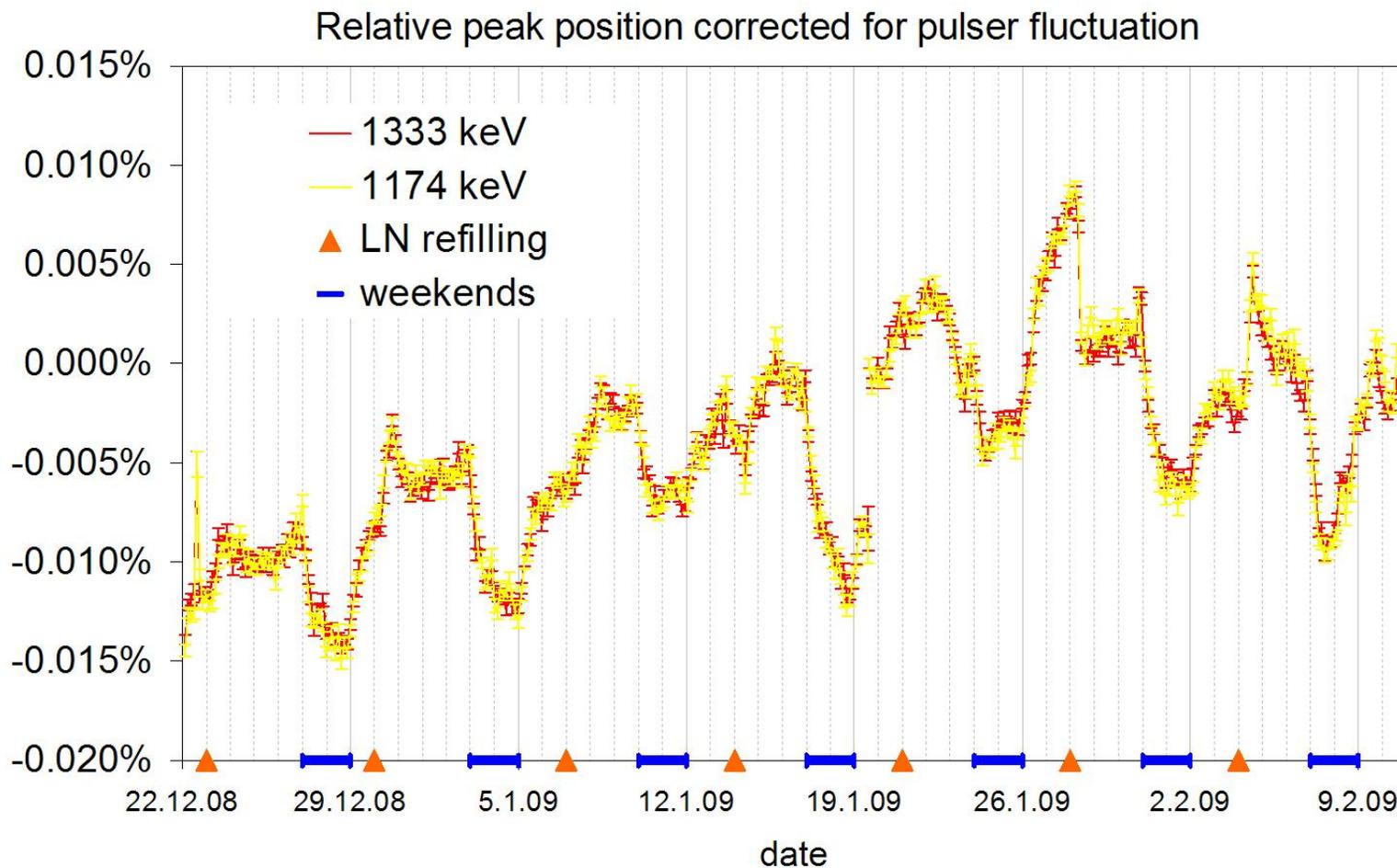


- Focus on charge collection:
 - ⇒ No position dependence of pulse height and resolution
 - ⇒ Dead layer measurement consistent with active volume determination
 - ⇒ Complete charge collection from the full detector volume
- Comparison of: Single Compton scattering vs. DEP vs. DEP&511-coincidence vs. collimated irradiation
 - ⇒ No differences in discrimination power despite differences in r/z distributions

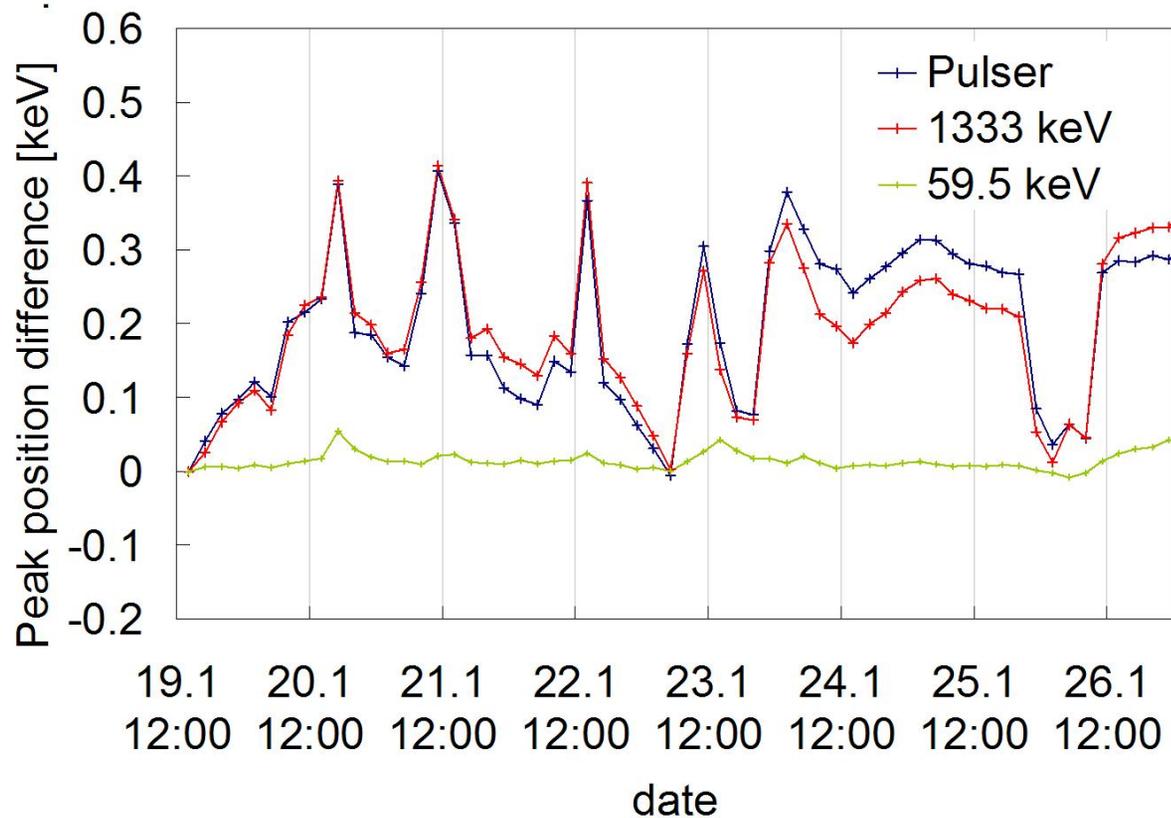
A second look at detector stability



Stability: Co-60 peak positions relative to pulser



Stability: day-night variation



- Gain variation of ~ 0.1 keV (after pulser correction) related to electronics/DAQ
 - Stable count rates
- \Rightarrow No indications for a non-stable charge collection in the BEGe detector

BEGe test production and yield evaluation with depleted germanium

Decision to test the full BEGe detector production chain :

1. Depleted GeO₂ from ECP
2. Reduction and purification at PPM
3. Crystal pulling at Oak Ridge
4. Diode fabrication at Meriden/Olen

Cost sharing and time line:

	1	2	3	4	5	6	7	8	9	10	11	12					
Procurement of 34 kg GeO ₂	█													Tuebingen / INR	delivery: May 15		
Testing of chemical purity				█										LNGS / INR	~1 week response		
Zone refinement at PPM				█	█									Univ. Dresden	issue: summer break		
Cristall pulling at Oak Ridge							█	█						INFN/Zurich	budget quotes available		
Detector fabrication									█	█				INFN/Zurich/Geel/MPIK/Tuebingen			Budget qu
Characterization and testing												█	█	ALL			

Upcoming: visit of Oak Ridge and Meriden on April 6/7