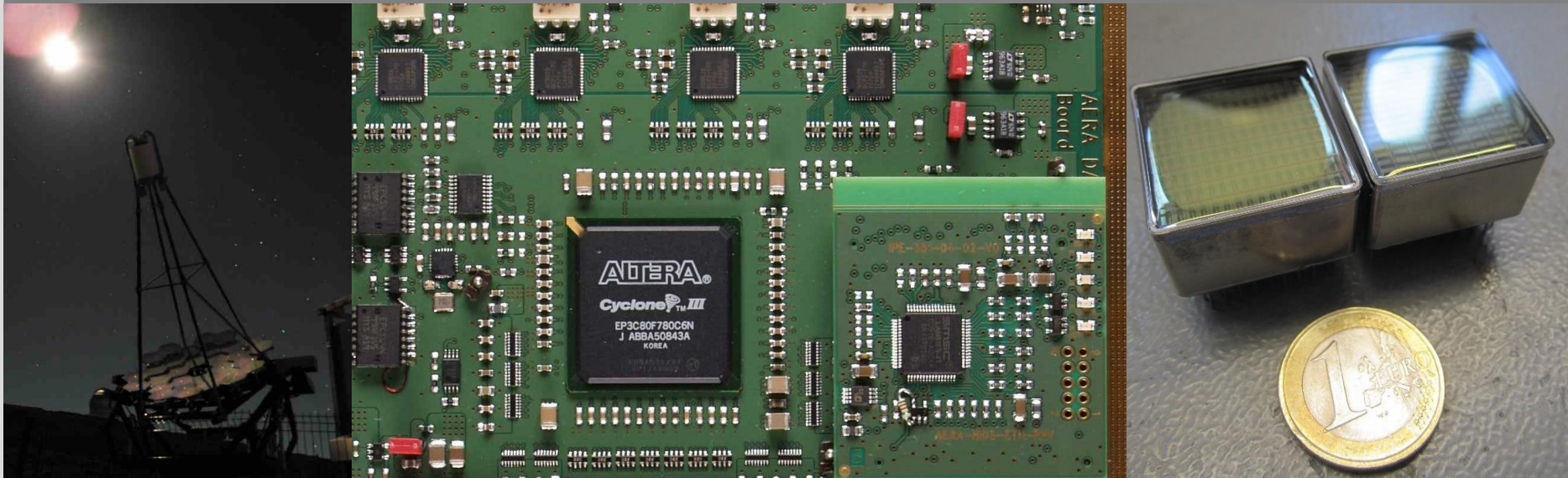


# Introduction to HAP workshop “Advanced Technology”

Matthias Kleifges (KIT – IPE)

Dr. Matthias Kleifges, Institute for Data Processing and Electronics (IPE)



# Welcome to Johannes Gutenberg University (JGU)

- Cordial welcome to Mainz at the HAP workshop “Advanced Technology”
- Now 4<sup>th</sup> workshop of HAP topic 4
  - KIT (Karlsruhe) January 2013
  - DESY (Zeuthen) June 2014
  - RWTH (Aachen) December 2014
  - JGU (Mainz) February 2016
- Workshop format cover
  - Broad spectrum of HAP issues
  - Special highlight topics



# Program of Monday 1<sup>st</sup> February

Monday, 1st February

|             |      |                                |   |
|-------------|------|--------------------------------|---|
| 12:30-13:30 |      | Registration                   |   |
| 13:30-15:45 | 135' |                                |   |
| 13:30       | 15'  | KLEIFGES                       | Introduction  |
| 13:45       | 30'  | HAUNGS                         | SiPMs in Astroparticle Physics: KIT activities                      |
| 14:15       | 30'  | JANICKO                        | LAr scintillation light read-out with SiPMs and WLS fibers in GERDA |
| 14:45       | 30'  | SCHUMACHER                     | AMD & PSD - SiPM-based scintillation detector for Auger             |
| 15:15       | 30'  | SMIDA                          | Performance of PMTs during high night sky brightness                |
| 15:45-16:15 | 30'  | Coffee Break                   |   |
| 16:15-17:45 | 105' | ASICs in astroparticle physics |   |
| 16:15       | 30'  | PERIC                          | Application of ASICs in astroparticle and particle physics          |
| 16:45       | 60'  | All                            | Discussion of future ASIC projects (wish list)                      |
| 19:00-22:00 |      | Dinner                         | Restaurant Heiliggeist  |

## Remarks

- 2 + 2 Session with **talks of 30 min.** (incl. 10 min. discussions)
- today:
  - Discussion on **future ASIC projects** in astroparticle physics
  - Free dinner at **Restaurant Heiliggeist** (former church)  
(vegetarian menu available on request)

# Program of Tuesday 2<sup>nd</sup> February

Tuesday, 2nd February

|             |     |                                  |   |
|-------------|-----|----------------------------------|---|
| 09:00-10:30 | 90' | <b>Photosensor development 1</b> |   |
|             | 30' | KAPPES                           | Multi-PMT optical modules   |
|             | 20' | Di Lorenzo                       | A wavelength shifting optical module for In-ice Neutrino Detectors            |
|             | 20' | RONGEN                           | Precision lab measurements on IceCube optical modules                         |
|             | 20' | QUERCHFELD                       | Challenge for PMTs in air-shower detection - highest linear dynamic range     |
| 10:30-11:00 | 30' | <b>Coffee Break</b>              |   |
| 11:00-12:30 | 90' | <b>Air shower technologie</b>    |   |
|             | 30' | AUFFENBERG                       | Small imaging telescopes for very high particle energies with SiPM camera     |
|             | 30' | KUNWAR                           | TAXI - a Transportable Array for eXtremely large area Instrumentation studies |
|             | 30' | Dorosti                          | Precise time synchronisation of autonomous radio stations at the PAO          |
| 12:30-13:30 | 60' | <b>Lunch</b>                     |   |
| 13:30-15:00 | 90' | <b>Data Acquisition</b>          |   |
|             | 30' | Oberlack                         | tbc: DAQ of Xenon   |
|             | 30' | BALZER                           | MTCA.4 a New Standard for Data Acquisition Systems                            |
|             | 30' | ZIOLKOWSKI                       | Fast Versatile and Programmable Multichannel Arbitrary Signal Generator       |

- When do we make the workshop photo?
- Many thanks to the all speakers and to the organizers team:
  - from Mainz: **Stephanie Röttger, Sebastian Böser, Uwe Oberlack**
  - from KIT: **Christiane Buchwald, Marc Weber, myself**

# Dinner



HEILIGGEIST



## ■ Restaurant “Heiliggeist”

▶ *Mailandsgasse 11*

*55116 Mainz*

*Tel: 06131 / 22 57 57*

<http://heiliggeist-mainz.de>

▶ *Meet you there  
at 19:00*

# How to get there...



## Public transport

- by bus
  - Staudingerweg
    - Bus 69
  - Taubertsbergbad
    - Bus 56
  - Rheingoldhalle
- takes ~30min

