

# Physics of Compressed Baryonic Matter

## CBM Collaboration Meeting

September 25 - 28, 2007, Dresden, Germany

### Scientific committee

B. Kämpfer (FZ Dresden)

P. Senger (GSI, Darmstadt)

### Local Organizers

F. Dohrmann

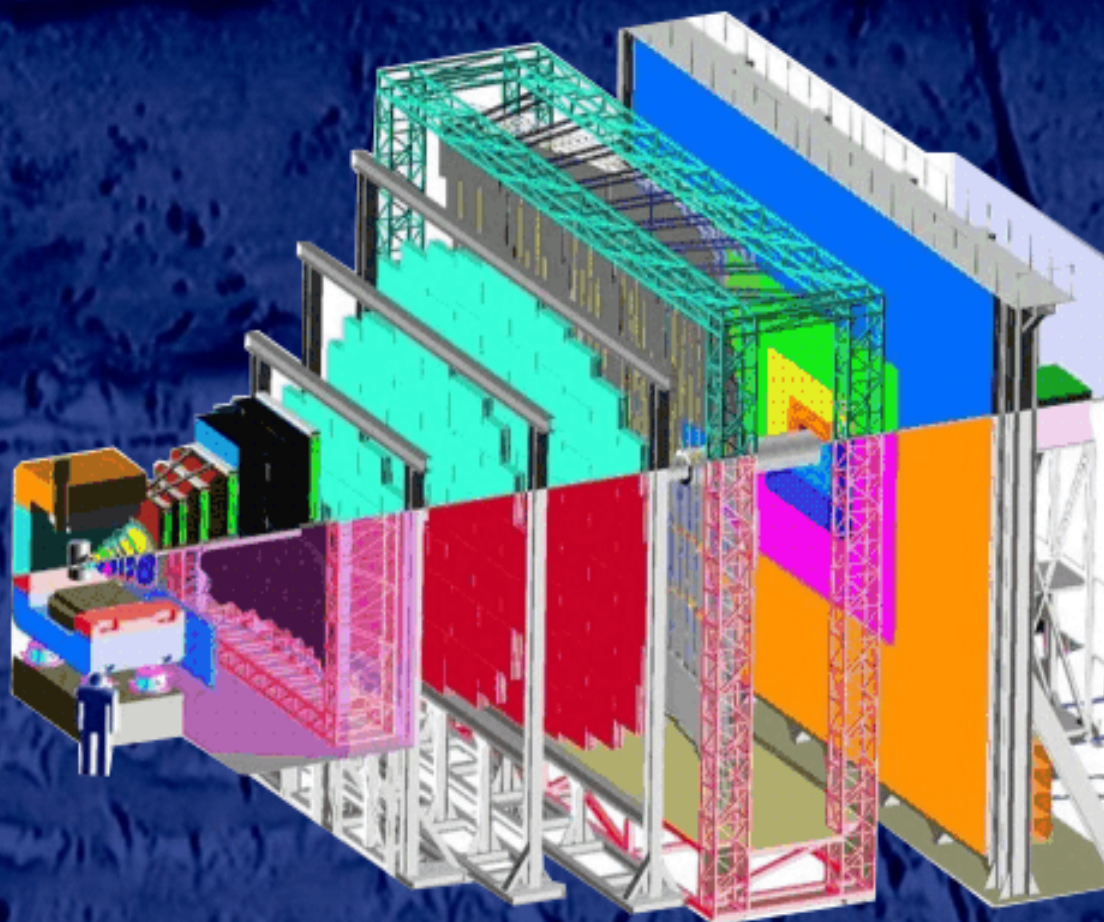
R. Kotte

A. Liebezeit

L. Naumann

D. Schich

J. Wüstenfeld



**Forschungszentrum**  
**Dresden** Rossendorf

# Forschungszentrum Dresden-Rossendorf



Institute für

- Ionenstrahlphysik und  
Materialforschung

- **Strahlenphysik**

- Hochfeld-Magnetlabor Dresd.

- Radiopharmazie

- Radiochemie

- Sicherheitsforschung

Projektgruppe Laser-

Teilchenbeschleunigung

Forschungsanlagen:

- ELBE + FEL

- Hochleistungslaser (Vorber.)

- Hochfeld-Magnetlabor

- Ionenstrahlzentrum

- PET-Zentrum

- ROBEL an ESRF Grenoble

- HADES an GSI

- TOPFLOW

# Institut für Strahlenphysik



# ELBE



supra conducting  
electron accelerator:  
5 – 40 MeV

# FEL



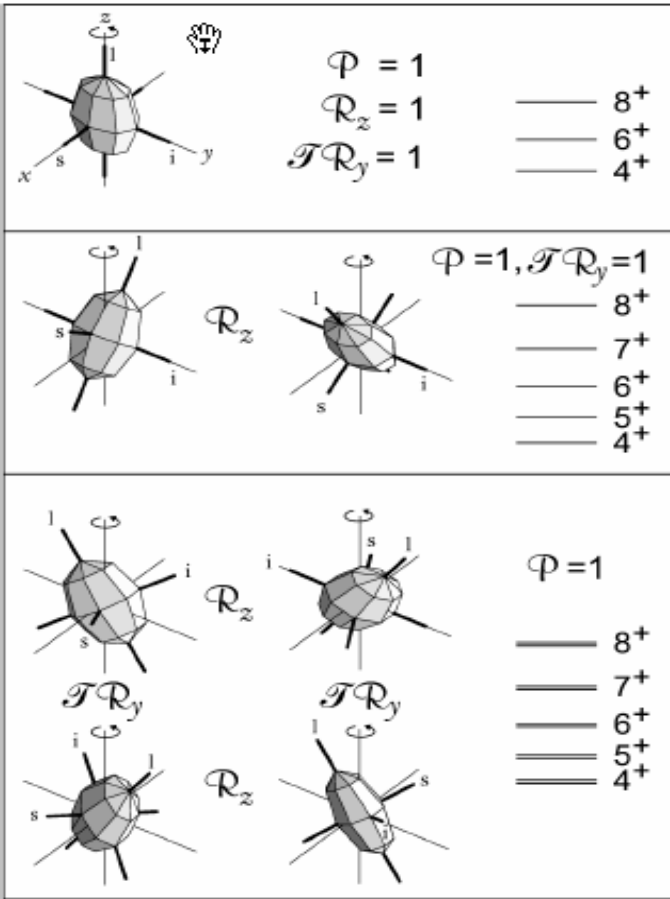
coherent infra-red light

2 - 200  $\mu\text{m}$

combination with  
Hochfeldlabor (100 T)

# Expertise: previously Institute for Nuclear- and Hadron Physics

nuclear structure:  
low-energy nuclear reactions

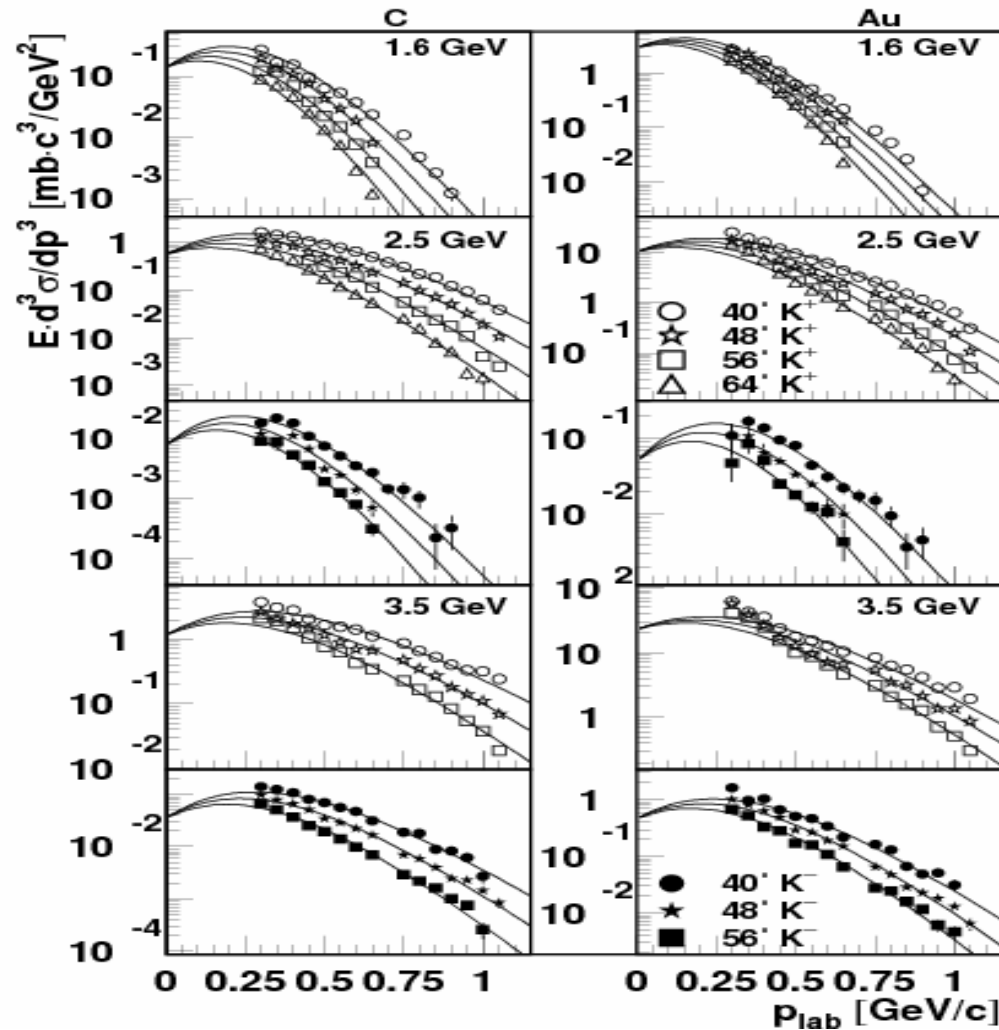


nuclear astrophysics:  
nuclei in photon bath

bremstrahlung cave



further previous / current activities in Hadron Physics:  
 KaoS, ANKE, COSY-TOF / FOPI



**RPC R&D at ELBE:**  
 bunch < 5 ps: timing  
 high current:  
 radiation cap.

# Hadron Physics: HADES

## Origin of mass

theory:

- QCD sum rules
- EoS of strongly interact. matter (critical point)
- transport (BUU) + hydro codes

MDC III in Rossendorf



MDC IV

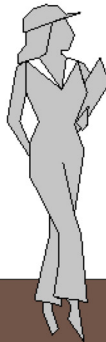
MDC III

MDC II

MDC I

RICH

MAGNET



TOF

Shower

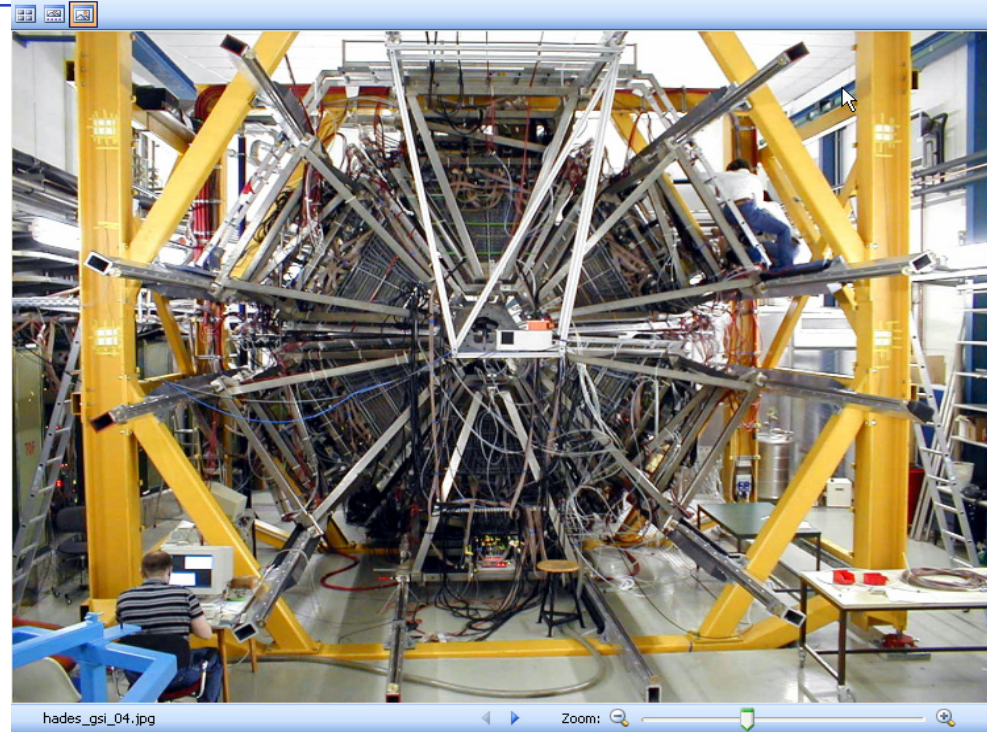
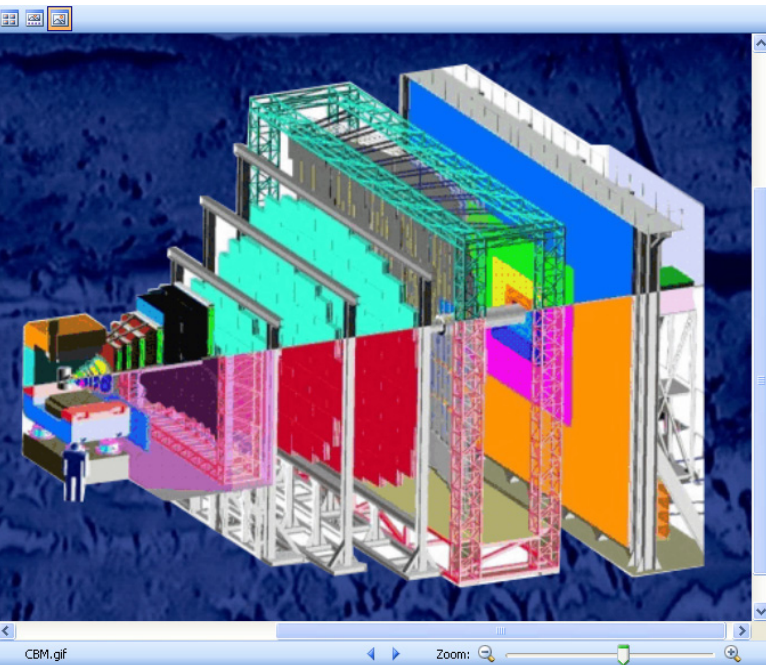
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TOFINO



# Perspectives of Hadron Physics

HADES at SIS18  
HADES at SIS100  
**CBM at SIS300**



let's materialize this vision  
and start with charming talks