



# W o r k s h o p @ **GSI**

August 30 – September 1, 2005



## A g e n d a

Tuesday, August 30 ☞ **18:00** Welcome ⇒ GSI Guest House

**19:30** Departure for dinner at restaurant **Sitte**

Wednesday, August 31 ☞ Meeting Room ☞ Theory seminar room SB 3.170a

### Session I: Diamond Growth

Chair: Christoph Nebel

**9:15** News from I3HP & NoRHDia

Elèni Berdermann

9:30 The homoepitaxial growth of thick single crystal CVD diamond for detector applications

Nicolas Tranchant, Saclay

10:00 Homoepitaxial growth of diamond for detector applications

Thomas Bauer, Uni Augsburg

10:30 Current state of heteroepitaxial diamond deposition

Mathias Schreck, Uni Augsburg

**11:00 Coffee Break**

### Session II: Diamond Surface + Metallization (1)

Chair: Milos Nesladek

**11:30** CVD Diamond surface characterization and contact interface properties

Christoph Nebel, AIST Tsukuba

**12:15 Lunch, GSI canteen**

### Session III: Surface + Metallization (2), Radiation Hardness

Chair: Milos Nesladek

**14:00** Metal-film formation studied with IR spectroscopy

Annemarie Pucci, KIP Uni Heidelberg

14:30 Metallization of diamonds at the Target Laboratory at GSI

Bettina Lommel, GSI Darmstadt

15:00 Investigation of the "dead layer" in natural diamond detectors by energy cut-off measurements

Vitaly Liechtenstein,

Kurchatov Inst. Moscow

15:30 Radiation hardness of insulating materials and semiconductors

Kurt Schwartz, GSI Darmstadt

**16:00 Coffee Break**

#### Session IV: Diamond Detectors (1)

Chair: Wolfgang Lange

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|-------|--|--------------------------------------|
| 16:30 | SC diamond detectors for synchrotron beam monitoring   | John Morse, ESRF Grenoble            |
| 17:00 | Characterization of Single Crystal CVD diamond detectors for heavy ions spectroscopy and MIPs timing                 | Michal Pomorski, GSI Darmstadt       |
| 17:30 | Mapping single-crystal diamond with $^{12}\text{C}$ micro beams  | Elèni Berdermann, GSI Darmstadt      |
| 18:00 | SC-Diamond for ToF measurements with relativistic particles: First beam test with $^{27}\text{Al}$ ions of 2 GeV/amu | Mladen Kis, RIB Zagreb/GSI Darmstadt |

**19:00 Dinner Buffet, GSI Guest House Foyer**

Thursday, September 1 P Meeting Room P Theory seminar room SB 3.170a

#### Session V: Diamond Detectors (2)

Chair: John Morse

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|-------------|---|---------------------------------|
| <b>9:30</b> | Diamond Detector developments at DESY                         | Christian Grah, DESY Zeuthen    |
| 10:00       | Synthetic diamonds for heavy-ion therapy dosimetry            | Monika Rebisz, GSI Darmstadt    |
| 10:30       | Modeling of the transport properties of CVD diamond detectors | Silvio Sciortino, INFN Florence |

**11:00 Coffee Break**

#### Session VI: FE Electronics for Diamond Detectors (1)

Chair: Alberto Pullia

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|--------------|--|---|
| <b>11:30</b> | Low-noise preamplifier for SC diamond detectors    | Diego Maiocchi, INFN Milano               |
| 12:00        | SC diamond detector FE electronics for MIPs timing | Andrei Carageorghopol,<br>NIPNE Bucharest |

**12:30 Lunch, GSI canteen**

#### Session VII: FE electronics for Diamond Detectors (2)

Chair: Alberto Pullia

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|--------------|--|--|
| <b>14:00</b> | Proposals to use NINO ASIC chips for diamond detectors | Evgeny Usenko, Institute for<br>Nuclear Research, Moscow |
| 14:30        | Time Stamping for Diamond                              | Peter Fischer, Uni Mannheim                              |

#### Session VIII: Collaboration Issues

Chair: EBe

- 15:00** Discussion of next steps:  
Sample distribution, radiation hardness studies etc.

**15:30 End of the workshop**