

## Project Survey 2010

### Project ID 05K10VKE / 05K10CKB

#### **a.) Justification of resources employed**

##### **German Partners**

ISS	0 PM
LAS	12 PM
IPE	6 PM
IEKP	4,5 PM

#### **b.) Scientific exchange**

Visit Prof. Dr. Victor Asadchikov SCI	End of Oct. - End of Nov. 2010
Visit Dr. Alexey Buzmakov SCI	Mid of Nov. - Mid of Dec. 2010
Visit Dr. Boris Roshchin SCI	Mid of Nov. - Mid of Dec. 2010
Visit Prof. Dr Sergej Tsapko TPU	Mid until End of Nov. 2010

Preparation Meeting of UFO Proposal 22<sup>sd</sup> Mar. 2010

Collaboration Meeting at Karlsruhe 24<sup>th</sup> Nov. 2010

Collaboration Meeting at Karlsruhe 6<sup>th</sup> Dec. 2010

Guest Scientist Elena Reznichenko TPU Oct. - Dec. 2010

Guest Scientist Vladimir Reznichenko TPU Oct. - Dec. 2010

#### **c.) Publishable Results**

S. Chilingaryan, A. Mirone, A. Hammersley, C. Ferrero, L. Helfen, A. Kopmann, T. dos Santos Rolo, P. Vagovic: *A GPU-based Architecture for Real-Time Data Assessment at Synchrotron Experiments*. Accepted for publication by IEEE Trans. Nuclear Science.

V. Altapova, J. Butzer, T. d. S. Rolo, P. Vagovic, A. Cecilia, J. Moosmann, J. Kenntner, J. Mohr, D. Pellicia, V. F. Pichugin and T. Baumbach, *X-ray phase-contrast radiography using a filtered white beam with a grating interferometer*, Nuclear Instruments and

Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment.  
Doi:10.1016/j.nima.2010.12.218, 2011.

В. Альтапова, А. Ершов, Т.д.С. Роло, Е. Резникова, Ю. Мор, Ю.Л. Пивоваров, В.Ф. Пичугин, и Т. Баумбах. "МЕТОДЫ ВИЗУАЛИЗАЦИИ И ИХ ПРИМЕНЕНИЕ НА ИСТОЧНИКЕ СИ АНКА КИТ", Поверхность: Рентгеновские, синхротронные и нейтронные исследования. В печати  
(V.Altapova, A.Ershov, T.d.S. Rolo, E.Reznikova, J.Mohr, Yu.L. Pivovarov, V.F. Pichugin, and T.Baumbach, *Imaging Methods and their Application at ANKA Light Source*, Journal of Surface Investigation: X-ray, Synchrotron and Neutron Techniques. (In press).

#### **d.) Dissemination of Knowledge**

S. Chilingaryan, A. Mirone, A. Hammersley, C. Ferrero, L. Helfen, A. Kopmann, T. dos Santos Rolo: *A GPU-based Architecture for Real-Time Data Assessment at Synchrotron Experiments*. GPU Technology Conference, San Jose USA, Sept. 20-23, 2010.

S. Chilingaryan, A. Mirone, A. Hammersley, C. Ferrero, L. Helfen, A. Kopmann, T. dos Santos Rolo: *A GPU-based Architecture for Real-Time Data Assessment at Synchrotron Experiments*. PNI-In House research NANO & MICRO Sciences and Technologies Workshop Karlsruhe, Dec. 2-3, 2010.

T. dos Santos Rolo, T. van de Kamp, A. Ershov, E. Reznichenko, V. Reznichenko and T. Baumbach: *High-speed micro-tomography at ANKA: applications and visualisation*. ANKA User Meeting, Karlsruhe, Oct. 7-8, 2010.

T. van de Kamp, T. dos Santos Rolo, P. Vagovic, A. Cecilia, A. Riedel and T. Baumbach: *Insect Imaging at ANKA - Visualization and Applications*. Karlsruhe, Oct. 7-8, 2010.

T. dos Santos Rolo, B. Zienicke, V. Altapova, A. Cecilia, A. Ershov, T. van de Kamp, P. Vagovic, D. Pelliccia, T. Lamparter, and T. Baumbach: *High speed micro-tomography at ANKA: implementation and first applications*. XTOP Conference, Warwick (UK), Sept. 20-23 2010.

T. van de Kamp, T. dos Santos Rolo, A. Riedel, H. Greven and T. Baumbach: *Insect tomography at ANKA: applications and visualization*. XTOP Conference, Warwick (UK), Sept. 20-23 2010.

UFO Web page: <http://www.ufo.kit.edu/>.