

Poster Presentations

The poster session will be held on Monday 5th, from 16:00 to 18:00 in room CR3.

| Poster number | Authors, Title |
|---------------|--|
| P1 | <p><i>A new software protocol for absorption-contrast and phase-contrast tomography using SR and neutrons</i></p> <p>F. Beckmann¹, E. Wintersberger², I. Khokhriakov¹, T. Kracht², R. Gehrke², J. Herzen³, F. Wilde¹, M. Ogurreck¹, B. Müller⁴, B. Schillinger³, M. Müller¹, A. Schreyer¹</p> <p>¹Institute of Materials Research, Helmholtz-Zentrum Geesthacht, Germany ²HASYLAB, DESY, Hamburg, Germany ³Physics Department, Munich University of Technology, Germany ⁴Biomaterials Science Center, University of Basel, Switzerland</p> |
| P2 | <p><i>Compressed sensing for phase contrast CT</i></p> <p>T. Gaass¹, G. Potdevin², F. Pfeiffer², A. Haase¹</p> <p>¹Zentralinstitut für Medizintechnik (IMETUM), Technische Universität München, Garching, Germany ²Department of Physics, Technische Universität München, Garching, Germany</p> |
| P3 | <p><i>Analysis of moiré fringe patterns by Wiener filtering: An extension to the Fourier method</i></p> <p>S. Harasse, W. Yashiro, A. Momose</p> <p>Department of Advanced Materials Science, Graduate School of Frontier Sciences, the University of Tokyo, Japan</p> |
| P4 | <p><i>X-ray phase laminography with a grating interferometer using iterative reconstruction</i></p> <p>S. Harasse, W. Yashiro, A. Momose</p> <p>Department of Advanced Materials Science, Graduate School of Frontier Sciences, the University of Tokyo, Japan</p> |
| P5 | <p><i>Reconstruction method for differential phase-contrast computed tomography measured in cone-beam geometry</i></p> <p>A. Velroyen¹, A. Tapfer¹, M. Bech¹, D. Hahn¹, P. B. Noël², J. Fu³, R. B. Tan³, J. W. Zhang³, L. Y. Chen³, F. Pfeiffer¹</p> <p>¹Department of Physics and Institute of Medical Engineering, Technische Universität München, Germany ²Department of Radiology, Technische Universität München, Germany ³Research Center of Digital Radiation Imaging and Biomedical Imaging, Beijing University of Aeronautics and Astronautics, China</p> |

- P6 *Comparison of phase contrast signal extraction techniques*
N. Bevins¹, J. Zambelli¹, K. Li¹, G. H. Chen^{1,2,3}
¹Department of Medical Physics, University of Wisconsin-Madison, USA
²Department of Radiology, University of Wisconsin-Madison, USA
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- P7 *In vivo differential phase contrast CT imaging using a Talbot-Lau interferometer*
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¹Department of Medical Physics, University of Wisconsin-Madison, USA
²Department of Radiology, University of Wisconsin-Madison, USA
- P8 *Alternative metal deposition technique for absorption gratings*
J. Zambelli¹, N. Bevins¹, K. Li¹, G. H. Chen^{1,2,3}
¹Department of Medical Physics, University of Wisconsin-Madison, USA
²Department of Radiology, University of Wisconsin-Madison, USA
³Department of Human Oncology, University of Wisconsin-Madison, USA
- P9 *Fabrication of high aspect grating using bonded substrate for X-ray refraction imaging by Talbot-Lau Interferometer*
T. Tada, D. Murakoshi, H. Ishii, A. Hashimoto, Y. Kaneko, W. Ito, T. Agano
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²Imaging Technology Center, R&D Management Headquarters, FUJIFILM Corp. 798, Japan
- P10 *Fabrication of high aspect ratio X-ray grating using Silicon dry etching method*
D. Noda, A. Tokuoka, T. Hattori
Laboratory of Advanced Science and Technology for Industry, University of Hyogo, Japan
- P11 *Radiography of sub-micron period X-ray gratings using compact X-ray tubes*
A. Gomella, E. Martin, S. K. Lynch, E. E. Bennett, N. Y. Morgan, H. H. Wen
Imaging Physics Lab, Biophysics and Biochemistry Center, National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, Maryland, USA
- P12 *Large area Medipix3 detector for energy resolved phase-contrast imaging*
F. M. Epple¹, G. Potdevin¹, D. Pennicard², D. Renker¹, H. Graafsma², F. Pfeiffer¹
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- P13 *Neutron imaging facilities at China Advanced Research Reactor*
S. Han, L. Hao, M. Wu, H. Wang, L. He, G. Wei, Y. Wang, Y. Liu, D. Chen
China Institute of Atomic Energy

- P14 *The diagnostic value of grating-based x-ray phase contrast*
 J. Herzen¹, M. Willner¹, A. Sztrókay², S. Sztrókay², D. Mayr³, P. Noël⁴, A. Fingerle⁴, I. Zanette^{1,5}, T. Weitkamp⁶, E. Rummeny⁴, M. Reiser², F. Pfeiffer¹
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- P15 *Observation of inclusions in aluminum using X-ray Talbot and Talbot-Lau interferometer*
 A. Kobayashi¹, T. Morimoto¹, T. Fukasawa², M. P. Olbinado², Y. Ohta³, A. Momose²
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³Faculty of Engineering, The University of Tokyo, Japan
- P16 *Design of mammography imaging system using grating interferometer*
 Y. M. Kwon, C. W. Ryu, Y. J. Kim, K. H. Yoon
 Radiation Imaging Technology Center, Jeonbuk technopark, Iksan, Korea
- P17 *Quantitative determination of phase Hounsfield units*
 M. Willner¹, J. Herzen¹, A. Sztrókay², D. Mayr², I. Zanette³, T. Weitkamp⁴, M. Reiser², F. Pfeiffer¹
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- P18 *Commissioning results from a first preclinical X-ray phase-contrast CT scanner*
 A. Tapfer¹, A. Velroyen¹, M. Bech¹, B. Pauwels², P. Bruyndonckx², X. Liu², A. Sasov², J. Kenntner³, J. Mohr³, M. Walter⁴, J. Schulz⁴, F. Pfeiffer¹
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- P19 *Evaluation of gratings for X-ray and neutron phase imaging techniques by using X-ray projection microscopy*
 K. Minami¹, W. Yashiro², M. P. Olbinado², A. Momose²
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- P20 *The osteocyte canaliculi are the basis of mineral metabolism in cortical bone studied by a multi-scan method of X-ray microscope*
N. Nango, S. Kubota, W. Yashiro, A. Momose, Y. Takada, K. Matsuo
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²The University of Tokyo, Japan
³Keio University School of Medicine, Japan
- P21 *X-ray phase contrast imaging with a unique phase grating used in its achromatic and propagation invariant regime*
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- P22 *Non-scatter contributions to the dark field signal in DPCI*
T. Koehler, G. Martens, U. van Stevendaal, E. Roessl
Philips Technologie GmbH Innovative Technologies
- P23 *Quantitative visibility-contrast imaging and tomography in X-ray Talbot interferometry*
W. Yashiro, S. Harasse, H. Kuwabara, K. Kawabata, A. Momose
Department of Advanced Materials Science, Graduate School of Frontier Sciences, the University of Tokyo, Japan
- P24 *Shearing interferometer spatial resolution for at-wavelength hard X-ray metrology*
S. Bérujon^{1,2}, E. Ziegler², H. Wang¹, K. Sawhney¹
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- P25 *Characterization of one dimensional compound refractive lens using rotating shearing interferometer technique*
H. C. Wang¹, S. Bérujon^{1,2}, K. Sawhney¹
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- P26 *K-edge and mirror filtered X-ray grating interferometers*
D. Stutman, M. Finkenthal
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- P27 *Extraction of tissue and cell outlines in Arabidopsis seeds using refraction contrast X-ray CT at SPring-8*
 D. Yamauchi¹, D. Tamaoki¹, M. Hayami¹, K. Uesugi², A. Takeuchi², Y. Suzuki², I. Karahara³, Y. Mineyuki¹
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- P28 *X-ray grating interferometer for quantitative biomedical imaging at Shanghai Synchrotron Radiation Facility*
 Y. Xi², B. Kou¹, H. Sun¹, J. Zhao², X. Xu², T. Xiao³, Y. Wang¹
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- P29 *Development of grating-based X-ray Talbot interferometry at the Advanced Photon Source*
 S. Marathe¹, X. Xiao¹, M. J. Wojcik², R. S. Divan², L. Butler³, K. Ham³, K. Fezzaa¹, M. Erdmann¹, H. Wen⁴, F. De Carlo¹, D. C. Mancini², L. Assoufid¹
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- P30 *Optimization of X-ray phase contrast imaging system toward high-sensitive measurements of biological organs*
 M. Hoshino, K. Uesugi, N. Yagi
 Japan Synchrotron Radiation Research Institute (JASRI/SPring-8)
- P31 *High-speed X-ray phase tomography with Talbot interferometer and fringe scanning method*
 S. Kibayashi¹, S. Harasse², W. Yashiro², A. Momose²
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- P32 *Phase imaging and tomography with a Talbot-Lau interferometer and white synchrotron radiation*
 M. P. Olbinado, S. Harasse, W. Yashiro, A. Momose
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- P33 *Dynamic observation of dilatancy using X-ray Talbot interferometer*
 T. Ohta, S. Harasse, W. Yashiro, A. Momose
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- P34 *Low-dose and fast grating-based X-ray phase-contrast tomosynthesis*
 Y. Xi¹, Y. Wang², J. Zhao¹
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- P35 *Compact X-ray Talbot-Lau interferometer with multiline embedded X-ray targets*
 N. Morimoto¹, S. Fujino¹, T. Nagatomi¹, K. Oshima², J. Harada³, K. Omote⁴, N. Osaka⁴,
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- P36 *First refraction contrast imaging via Laser-Compton scattering X-ray at KEK*
 K. Sakaue¹, T. Aoki¹, S. Araki², M. Fukuda², Y. Honda², N. Terunuma², J. Urakawa², M.
 Washio¹
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- P37 *First experiments with a Laser-driven compact synchrotron X-ray source*
 S. Schleede¹, M. Bech¹, K. Achterhold¹, R. J. Loewen², M. Gifford², R. D. Ruth³, F. Pfeiffer¹
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- P38 *Advanced features of X-ray imaging by MIRRORCLE-CV4*
 H. Yamada^{1,2}, S. Maeo², T. Yamada², M. Yamada²
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²Photon Production Laboratory Ltd., Japan
- P39 *Theoretical aspects of x-ray grating interferometry*
 P. Modregger^{1,2}, B. R. Pinzer¹, T. Thüning^{1,3}, M. Stampanoni^{1,3}
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- P40 *Sensitivity in X-ray grating interferometry on compact systems*
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