

# JCNS Workshop on Modern Trends in Production and Applications of Polarized $^3\text{He}$

11.-13. 7. 2010, Ismaning

## Preliminary program

July 11	July 12	July 13
	09:00 <b>A. Ioffe, JCNS</b> Welcome address	09:00 <b>A. Ioffe, JCNS</b> Resume 1 <sup>st</sup> day
	09:10 <b>3He Polarization: SEOP</b> <b>T. Walker, Wisconsin</b> Fundamentals of SEOP	09:10 <b>Applications: Scattering and Imaging</b> <b>T. Chupp, Michigan</b> Neutron Polarimetry for Fundamental Physics Measurements
	09:40 <b>H. Kira, JAEA</b> Developments of In-Situ SEOP Polarized $^3\text{He}$ Neutron Spin Filter in JAPAN	09:40 <b>A. Ioffe, JCNS</b> Benefits of polarization analysis for neutron scattering instrumentation
	10:00 <b>E. Babcock, JCNS</b> Development of in-situ $^3\text{He}$ polarizers for wide angle polarization analysis	10:10 <b>T. Oku, JAEA</b> Status and perspective of neutron polarizing device development and application in neutron scattering experiments in Japan
	10:30 <b>Coffee</b>	10:30 <b>E. Babcock, JCNS</b> Investigations of the effects of high intensity neutron flux on in-situ SEOP of $^3\text{He}$
	11:00 <b>Y. Arimoto, KEK</b> Development of External Cavity Optics for Optical Pumping Diode Laser	10:50 <b>Coffee</b>
	11:20 <b>Y. Sakaguchi, JAEA</b> Structure of glasses for $^3\text{He}$ neutron spin filter cells	11:20 <b>T. Gentile, NIST</b> $^3\text{He}$ neutron spin filter development and applications at the NCNR
	11:40 <b>B. Hersman, XeMed</b> High-volume SEOP polarization of $^3\text{He}$	11:50 <b>W.T. Lee, ANSTO</b> Polarized $^3\text{He}$ Based Neutron Polarizers and Analysers for ANSTO Instruments
	12:10 <b>T. Walker, Wisconsin</b> Photon budget for spin-exchange optical pumping	12:10 <b>L.J. Chang, JAEA</b> Japan-Taiwan Joint Development Project for Polarized $^3\text{He}$
	12:30 <b>Lunch</b>	12:30 <b>Y. Sakaguchi, JAEA</b> Applications of $^3\text{He}$ neutron spin filters on the small-angle neutron scattering spectrometer SANS-J-II
	14:00 <b>3He Polarization: MEOP</b> <b>P.J. Nacher, LKB Paris</b> Fundamentals of MEOP	12:50 <b>Lunch</b>
	14:30 <b>S. Morgan, LKB Paris</b> Optical pumping of metastable $^{129}\text{Xe}$ in discharge cells	14:00 <b>S. Masalovich, FRM II</b> Polarized $^3\text{He}$ gas at the FRM II
	14:50 <b>C. Mrozik, Mainz</b> Construction of a Compact $^3\text{He}$ Polarizing Facility	14:20 <b>J. Wild, Sheffield</b> Recent developments in methods for MRI of hyperpolarised gases in the lungs
	15:10 <b>C. Talbot, LKB Paris</b> Compact low-field-MEOP polarising units for on-site production of HP $^3\text{He}$ gas	14:50 <b>M. Guldner, Mainz</b> Realization of administration unit for He-3 with gas recycling
	15:30 <b>G. Collier, Krakow</b> Metastability Exchange Optical Pumping of $^3\text{He}$ at 1.5T for a in-situ polarizer	15:10 <b>K. Safiullin, LKB Paris</b> Lung imaging at ultra-low magnetic field using polarized $^3\text{He}$
	15:50 <b>Coffee</b>	15:30 <b>S. Parnell, Sheffield</b> $^3\text{He}$ spin manipulation and methods using NMR methods
	16:20 <b>Applications: Scattering and Targets</b> <b>J. Krimmer, Mainz</b> Polarized $^3\text{He}$ targets in medium energy physics at MAMI	15:50 <b>S. Morgan, LKB Paris</b> Multiple spin echoes and the stabilization of unstable nuclear precession in hyperpolarized liquid $^3\text{He}$ - $^4\text{He}$ mixtures
	16:50 <b>S. Watson, NIST</b> Development of magnetostatic cavities for $^3\text{He}$ neutron spin filters	16:10 <b>Final Discussion</b>
18:00 <b>Registration and Welcome Dinner</b>	17:10 <b>V. Hutanu, RWTH Aachen</b> $^3\text{He}$ spin filters for spherical neutron polarimetry at POLI-Heidi	16:30 <b>End of Workshop</b>
	17:45 Transfer to Munich	
	18:30 <b>Dinner</b>	