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Born : 04/09/1988

PROFESSIONAL EXPERIENCE

- Sept 2015 - Present** **École Normale Supérieure, Paris, France. G. Bodenhausen group.**
Post-doctoral researcher in nuclear magnetic resonance (NMR). Work performed in hyperpolarization via dynamic nuclear polarization (DNP), both MAS and dissolution with the development of new 9.4 T instrumentation for dissolution-DNP.
- Sept 2015 - Feb 2017** **École Polytechnique Fédérale de Lausanne (EPFL), Switzerland.**
Academic host in the Bodenhausen and Emsley groups. Works and collaborations in DNP, development of a 9.4 T dissolution-DNP polarizer for ENS Paris.
- Oct 2011 - Sept 2015** **CERN, Geneva, Switzerland.**
Radiation protection and intervention planning and scheduling, followed by a temporary physicist position in radiation protection. FLUKA calculations (Monte Carlo) to simulate activation levels in particle accelerators facilities.
- April - Sept 2011** **Magnetic Resonance Centre (Meersmann Group), University of Nottingham, U.K.**
Master's thesis in nuclear magnetic resonance and magnetic resonance imaging. Translational research in MRI techniques using hyperpolarized noble gases.
- June - August 2010** **Institut Pasteur, 75015 Paris, France.**
Internship in the Quantitative Image Analysis Unit. Experimental work on Compressed Sensing.
- August 2007** **Observatoire de Paris-Meudon, Paris, France: Internship.**
Programming in Fortran, and contribution to a publication in astrophysics.

TRAINING AND DIPLOMAS

- 2011 - 2014** **Arts et Métiers ParisTech:** PhD in Industrial Engineering. PhD work performed at CERN in radiation protection and intervention planning and optimization, funded by a Marie Curie Actions initial training network.
- 2011** **Université de Provence Aix-Marseille III:** Master's degree in analytical and theoretical chemistry, with "*mention très bien*" (honours).
- 2008 - 2011** **École Centrale Marseille (France):** generalist engineering School, equivalent to a master's degree in engineering.
- 2006 - 2008** **Lycée Saint Louis, "Classe préparatoire aux grandes écoles":** two-year intensive scientific training to prepare competitive exams to enter French engineering graduate schools.
- 2006** **Scientific Baccalaureate** with honours ("*mention très bien*").

LANGUAGES AND PROGRAMMING

French: Native speaker.

English: Fluent. TOEFL in 2006 (internet based test, 109/120). TOEIC (2010): 985.

German: Spoken and written. European level C1.

Programming: Python, matlab, Java, C, Labview (notions), C++ (notions).

PUBLICATIONS

M. Cavallès, A. Bornet, X. Jaurand, B. Vuichoud, D. Baudouin, M. Baudin, L. Veyre, G. Bodenhausen, J.-N. Dumez, S. Jannin, C. Copéret and C. Thieuleux, Tailored microstructured hyperpolarizing matrices for optimal magnetic resonance imaging, *Angew. Chem. Int. Ed.*, Accepted Author Manuscript. doi:10.1002/anie.201801009, February 2018.

D.L. Silverio, H.A. van Kalker, T.-C. Ong, M. Baudin, M. Yulikov, L. Veyre, P. Berruyer, S. Chaudhari, D. Gajan, D. Baudouin, M. Cavallès, B. Vuichoud, A. Bornet, G. Jeschke, G. Bodenhausen, A. Lesage, L. Emsley, S. Jannin, C. Thieuleux, and C. Copéret, Tailored Polarizing Hybrid Solids with Nitroxide Radicals Localized in Mesoporous Silica Walls. *Helv. Chim. Acta*, 100: n/a, e1700101. doi:10.1002/hlca.201700101, May 2017.

E. Banach, C. Invernizzi, M. Baudin, R. Neier and D. Carnevale, Columnar self-assembly of N,N',N''-trihexylbenzene-1,3,5-tricarboxamides investigated by means of NMR spectroscopy and computational methods in solution and solid state, *Phys. Chem. Chem. Phys.*, 2017, DOI: 10.1039/c6cp05598b.

A. Bornet, A. Pinon, A. Jhajharia, M. Baudin, L. Emsley, G. Bodenhausen, J. H. Ardenkjær-Larsen and S. Jannin, Microwave-Gated Dynamic Nuclear Polarization, *Physical Chemistry Chemical Physics*, September 2016.

P. Bonnal et al., OpenSE: a Systems Engineering Framework Particularly Suited to Particle Accelerator Studies and Development Projects, 7th IPAC Conference, Busan, Korea, May 2016.

M. Baudin, P. Bonnal, and J.-M. Ruiz, The Collaborative DSM: a new way to handle complex collaborative planning and scheduling processes, *16th International DSM Conference Paris, France, 2014*.

T. Fabry, M. Baudin, B. Feral, L. Vanherpe, and L. Tabourot, Intervention Modelling at High-Energy Particle Accelerators, 5th IPAC Conference, Dresden, Germany, June 2014.

M. Baudin, P. Bonnal, B. Nicquevert, and J.-M. Ruiz, An Enhanced Planning and Scheduling Approach Suited to the Requirements of Collaborative Project Management, *Journal of Modern Project Management.*, vol. 1, no. 2, 2013.

M. Baudin, P. Bonnal, and J.-M. Ruiz, *Combining Activity DSM with Temporal Logic for Collaborative Planning and Scheduling*. InTech, International Journal of Advanced Robotic Systems, Manuel Ferre, Jouni Mattila, Bruno Siciliano, Pierre Bonnal (Ed.), 2013.

P. Bonnal, M. Baudin, and J.M. Ruiz, *Systems Engineering Issues in Scientific Facilities Subject to Ionizing Radiations*, International Journal of Advanced Robotic Systems, InTech, 2013.

P. Bonnal, M. Baudin, and J. De Jonghe, *Merging PDM, RSM and LSM scheduling approaches into a single construction project scheduling system*, The Journal of Modern Project Management, vol 1, issue 2, pp6-17, 2013.

Fabry, T., Vanherpe, L., Baudin, M., Theis, C., Braesch, C., Feral, B., *Interactive intervention planning in particle accelerator environments with ionizing radiation*, NIMA (Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment), vol 708, April 21st 2013, pp. 32-38, 2013.

M. Baudin, P. Bonnal, and J. De Jonghe, A DSM Based '2.0' System for Human Intervention Planning and Scheduling in Facilities Emitting Ionizing Radiations, in *Gain competitive advantage by managing complexity: Proceedings of the 14th International DSM Conference*, 2012.

P. Bonnal, M. Baudin, and J.-M. Ruiz. Handling a Design Structure Matrix based on fuzzy data. in *Gain competitive advantage by managing complexity: Proceedings of the 14th International DSM Conference*, 2012.

J. Souchay et al., The construction of the large quasar astrometric catalogue (LQAC), *Astronomy and Astrophysics*, Volume 494, Number 2, February 2009

J. Souchay et al., The LQAC Compilation of the Quasars Catalogues, *AIP Conference Proceedings*. Vol. 1043. No. 1. AIP, 2008.