



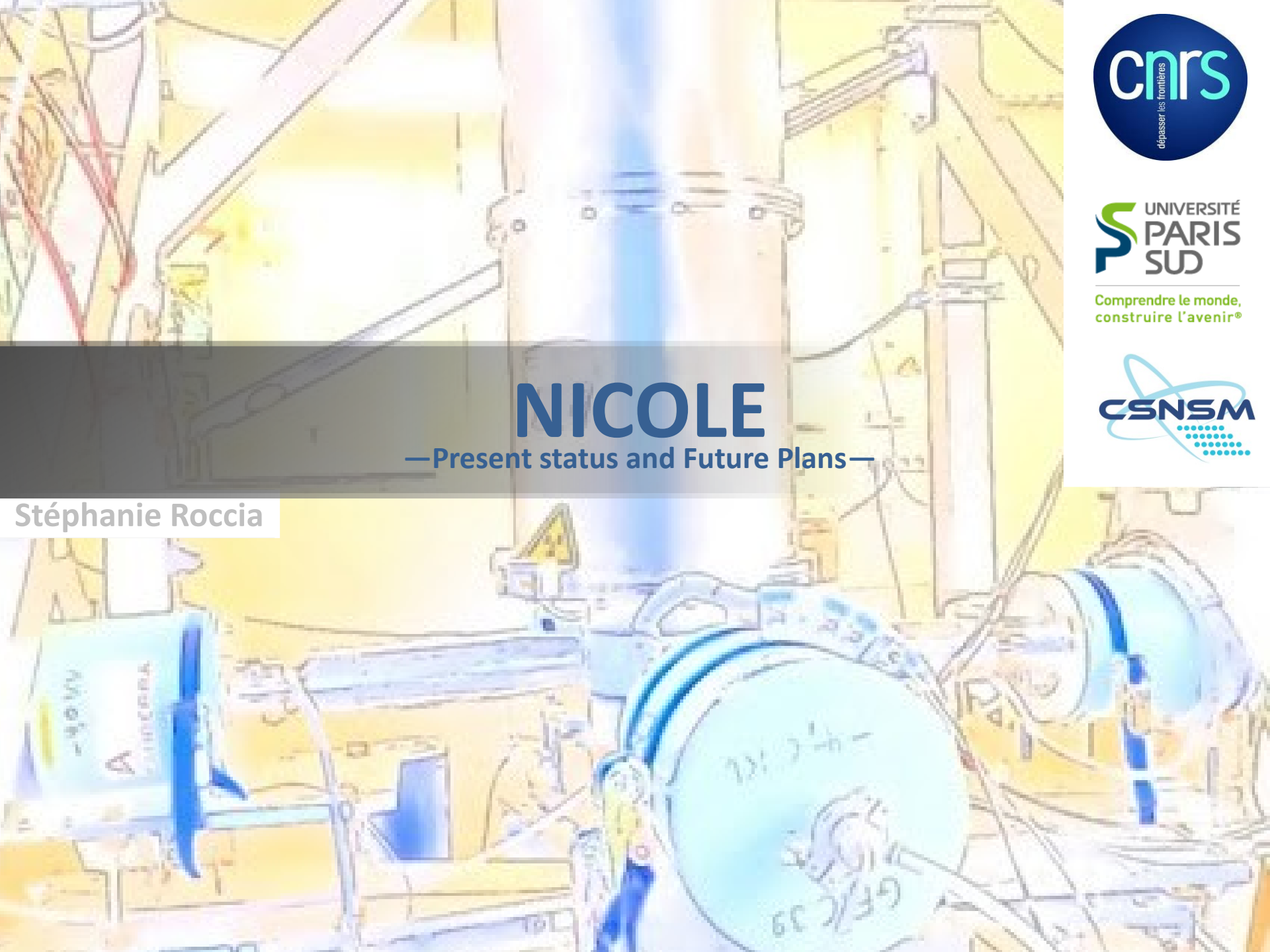
Comprendre le monde,
construire l'avenir®



NICOLE

— Present status and Future Plans —

Stéphanie Roccia



NICOLE

- Our wish
- The collaboration
- Long story short ...
- Status
- Perspectives





Have a On-Line cryostat for versatile/unique/exotic experiments.

To be soon ready for the so beautiful first angle and energy resolved beta delayed neutron measurement on medium heavy nuclei.

University of Maryland, College Park, USA J.R. Stone, W. B. Walters
University of Tennessee , Knoxville, USA C.R.Bingham, R.Grzywacz, K. Kolos,
N.J. Stone

McMaster University, Hamilton, CA B. Singh

Niigata University, Niigata, JP **T. Otsubo**

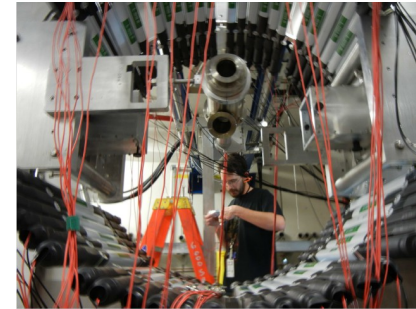
University of Surrey, Guildford, UK P. M. Walker

CSNSM, Orsay, FR **A. Etilé, C. Gaulard, S. Roccia**

LPSC, Grenoble, FR G. Simpson

ILL, Grenoble, FR U. Köster

CERN, CH M. Madurga



- The two last NICOLE runs

PRL **109**, 032504 (2012)

PHYSICAL REVIEW LETTERS

week ending
20 JULY 2012

Magnetic Dipole Moment of the Doubly-Closed-Shell Plus One Proton Nucleus ^{49}Sc

T. Ohtsubo,¹ N. J. Stone,^{2,3} J. R. Stone,^{2,3} I. S. Towner,⁴ C. R. Bingham,² C. Gaulard,⁵ U. Köster,⁶ S. Muto,⁷ J. Nikolov,⁸
K. Nishimura,⁹ G. S. Simpson,¹⁰ G. Soti,¹¹ M. Veskovcic,⁸ W. B. Walters,¹² and F. Wauters¹¹

PHYSICAL REVIEW C **89**, 044309 (2014)

Magnetic properties of ^{177}Hf and ^{180}Hf in the strong-coupling deformed model

S. Muto,^{1,*} N. J. Stone,^{2,3} C. R. Bingham,^{2,4} J. R. Stone,^{2,3} P. M. Walker,⁵ G. Audi,⁶ C. Gaulard,⁶ U. Köster,⁷ J. Nikolov,⁸
K. Nishimura,⁹ T. Ohtsubo,¹⁰ Z. Podolyak,⁵ L. Risegari,⁶ G. S. Simpson,¹¹ M. Veskovcic,⁸ and W. B. Walters¹²

... And a major cryogenic issue in 2011

Since the fridge is repaired:

- Hard work AT NICOLE
 - Pumping cabinet was moved to open a trench
 - Electricity/water/compressed-air/He-recovery-line were disconnected
 - Mezzanine is now nearly fully used and the floor level has changed
- Consequences
 - Misalignment issues
 - Adaptations
 - More adaptations
 - LOT of damages !!!!!!!

Despite the fact we spent ~5 times more **time** and **money** for adaptation than repairing the fridge ... we are still not ready!

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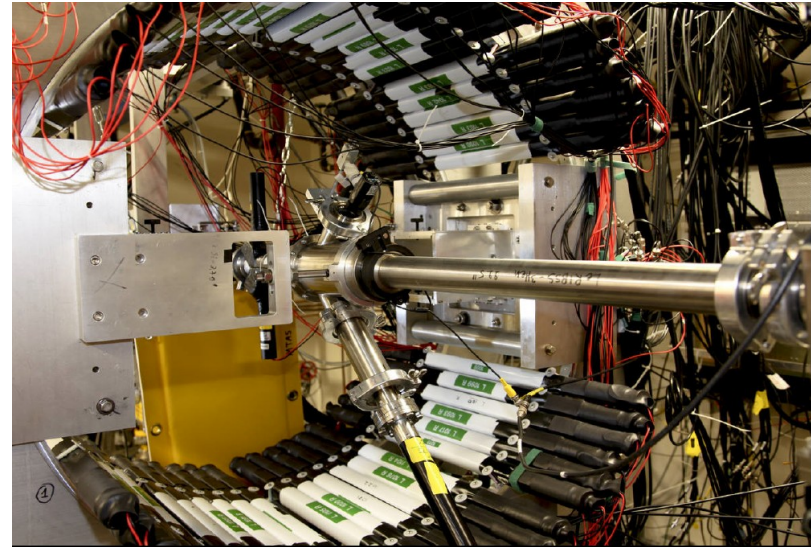
Status

- Adaptation to the new level of the mezzanine floor
→ done
- Connections → on-going
- Alignment → over any time soon (including beam)
- Some new pieces need to be machined/ordered

Beta-delayed neutrons from oriented $^{137,139}\text{I}$ and $^{87,89}\text{Br}$ nuclei

VANDLE@NICOLE

First angle and energy resolved beta delayed neutron measurement on medium heavy nuclei.



Accepted at the 45th INTC
Spokesperson: R. Grzywacz:

