

MC27: Superfluidity, vortices and quantum turbulence in atomic systems

Organisateurs : R. Chircireanu, F. Chevy & I. Danaila

Mardi 23 août – 15h00- 18h30

15:00 - 15:24 INVITÉ MC27-1	Turbulence in atomic Bose-Einstein condensates: a new paradigm Carlo F. Barenghi <i>School of Mathematics, Statistics and Physics, Newcastle University, Newcastle-upon-Tyne, NE1 7RU, United Kingdom (carlo.barenghi@newcastle.ac.uk)</i>
15:24 - 15:48 INVITÉ MC27-2	A quantum vortex collider Giacomo Roati <i>CNR-INO and LENS, via N. Carrara 1 Sesto Fiorentino, Italy (roati@lens.unifi.it)</i>
15:48 - 16:12 INVITÉ MC27-3	Mesophysics of quantum turbulence: the superfluid 4He route Philippe-E Roche <i>Institut Néel, CNRS / UGA, Grenoble, France</i>
16:12 - 16:24 MC27-6	High-order statistics and intermittency of a two-fluid HVBK quantum turbulent flow Zhentong Zhang, Ionut Danaila, Emmanuel Leveque, and Luminita Danaila <i>Université de Rouen Normandie, Laboratoire de Morphodynamique Continentale et Côtière, CNRS UMR 6143, Place Emile Blondel, 76821 Mont Saint Aignan, France (luminita.danaila@univ-rouen.fr)</i>
16:24 - 16:36 MC27-7	Evidence of Strong Quantum Turbulence in Bose Einstein Condensates H. A. J. Middleton-Spencer , A. D. G. Orozco, L. Galantucci, M. Moreno, N. G. Parker, L. A. Machado, V. S. Bagnato and C. F. Barenghi <i>Joint Quantum Centre Durham-Newcastle, School of Mathematics, Statistics and Physics, Newcastle University, UK (h.a.j.middleton-spencer2@ncl.ac.uk)</i>
16h36-17h00 Coffee break	

17:00 - 17:24 INVITÉ MC27-5	Friction-enhanced lifetime of bundled quantum vortices Giorgio Krstulovic , Luca Galantucci, and Carlo F. Barenghi <i>Université de la Côte d'Azur, Observatoire de la Côte d'Azur, CNRS, Laboratoire Lagrange, Boulevard de l'Observatoire CS 34229 - F 06304 NICE Cedex 4, France (krstulovic@oca.eu)</i>
17:24 - 17:48 INVITÉ MC27-4	Ultracold Bosons and Fermions in a Box Nir Navon <i>Department of Physics & Yale Quantum Institute, Yale University, New Haven, Connecticut 06520, USA (nir.navon@yale.edu)</i>
17:48 - 18:00 MC27-8	Condensation d'ondes classiques en fibre optique multimode K. Baudin, L. Zanaglia , A. Fusaro, J. Garnier, K. Krupa, C. Michel, V. Doya, G. Millot, et A. Picozzi <i>Université Côte d'Azur, CNRS, Institut de Physique de Nice, Nice (lucas.zanaglia@etu.univ-cotedazur.fr)</i>
18:00 – 18:12 MC27-9	Vortices in fast rotating 2D BEC : from order to melting Laurent Longchambon , Mathieu de Goer de Herve, Yanliang Guo, David Rey, Romain Dubessy et Helene Perrin <i>Sorbonne Université Paris Nord, Laboratoire de Physique des Lasers, CNRS UMR 7538, F-93430 Villetaneuse, France (laurent.longchambon@univ-paris13.fr)</i>
18:12 - 18:24 MC27-10	Direct and inverse cascades in turbulent Bose-Einstein condensate Ying Zhu , Boris Semisalov, Giorgio Krstulovic, Sergey Nazarenko <i>Université Côte d'Azur, CNRS, Institut de Physique de Nice (INPHYNI), France (yzhu@unice.fr)</i>

Posters

MC27-11	Simulating quantum Hall systems with Dysprosium atoms : From the 2D ribbon and the cylinder to the 4D system Jean-Baptiste Bouhiron , Aurélien Fabre, Quentin Redon, Tanish Satoor, Qi Liu, Raphael Lopes, Sylvain Nascimbene <i>Laboratoire Kastler Brossel, Collège de France, CNRS, ENS-PSL University, Sorbonne Université, 11 Place Marcelin Berthelot, 75005 Paris, France (jeanbaptiste.bouhiron@lkb.ens.fr)</i>
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MC27-12

Scaling properties of velocity circulation in quantum turbulence

Juan Ignacio Polanco, Nicolas Muller, et Giorgio Krstulovic

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