

# MODE-SNR-PWN 2017 workshop

## Scientific program

*GANIL, Caen, 09-11 May 2017*

**Tuesday 14:00 → 14:30 : Registration (Maison d'hôtes)**

\* *For early arrivals : Lunch at GANIL restaurant 12:00 – 14:00*

**Tuesday 14:30 → 16:00 : plenary session (Maison d'hôtes)**

*Welcome (15 ')*

**G. Puehlhofer** – *X-ray observational constraints on neutron stars (35 + 10')*

**J. Petri** – *Radiation properties and polarization from an off-centred rotating dipole (25 + 5')*

\* *16:00 – 16:30 Coffee break*

**Tuesday 16:30 → 18:30 : parallel sessions**

**Parallel Session I – “Pulsars and NS magnetosphere” 16:30 -18:30 (Maison d'hôtes) :**

**A. Kundu** – *Pulsed emission from a rotating off-centred dipole in vacuum (25 + 5')*

**G. Voisin** – *Quantum theory of curvature and synchro-curvature radiation in pulsar magnetospheres (25 + 5')*

**F. Octau** – *Fitting the Polarisation Position Angle of radio pulsars using the Decentred Rotating Vector Model (25 + 5')*

**M. Cieslar** – *The MCMC population synthesis of single pulsars in the Milky Way (25 + 5')*

**Parallel Session II – “NS interiors and modelling” 16:30 -18:00 (Room 105):**

**J. L. Zdunik** – *The crust of neutron stars - approximate approach (25 + 5')*

**M. Sieniawska** – *Is it possible to distinguish between neutron stars? (25 + 5')*

**A. Harpole** – *Multi-scale modelling of burning on neutron stars (25+ 5')*

\* **h. 19:00** *Welcome cocktail at GANIL – Maison d'hôtes*

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**Wednesday 9:30 → 12:30 : plenary session (Maison d'hôtes)**

**F. Gulminelli** – *Equation of state constraints from a model independent approach* (35 + 10')

**Y. Gallant** – *Constraining pulsar birth properties with supernova X-ray observations* (25 + 5')

\* *10:45 – 11:15 Coffee Break*

**M. Fortin** – *Astrophysical and nuclear constraints on the equation of state: current status and perspectives* (35 + 10')

**N. Martin** – *Hydrodynamics in neutron star inner crust and applications to glitches* (25 + 5')

\* *12:30 – 14:00 Lunch at GANIL restaurant*

**Wednesday 14:00 → 18:00 : parallel sessions**

**Parallel Session I – COST/NewCompStar Working Group 2 meeting “From experimental data to neutron stars” 14:00 -15:30 (Maison d'hôtes):**

Chair : **I. Vidana**

**O. Lopez** – *Isospin dependence of the nuclear equation of state: the INDRA/FAZIA experimental program at GANIL* (35 + 10')

**N. Chamel** – *Relating nuclear-physics experiments to neutron stars with nuclear energy density functional theory* (35 + 10')

**Parallel Session II – “SNRs and PWNe” 14:00 -15:30 (Room 105):**

**J. Ballet** – *Why is the X-ray image of RX J1713 more contrasted than the gamma?* (25 + 5')

**F. Acero** – *Spatially resolved spectroscopy of RX J1713-3946 with Fermi-LAT* (25 + 5')

**L. Bondonneau** – *Low frequency pulsar observation with LOFAR* (25 + 5')

\* *15:30 – 16:00 Coffee Break*

**Parallel Session I - COST/NewCompStar Working Group 2 meeting “From experimental data to neutron stars” 16:00 -18:00 (Maison d'hôtes):**

**M. Oertel** – *Proto-neutron star properties with a new temperature dependent hyperonic equation of state* (25 + 5')

**C. Gonzalez Boquera** – *Symmetry energy and neutron star core-crust transition in Gogny forces* (25 + 5')

**G. Grams** – *Nuclear distribution in core-collapse supernova* (15 + 5')

*Discussion session – round table*

**Parallel Session II - “SNRs and PWNe” 16:00 -18:00 (Room 105):**

**B. Condon** – *Detection of two TeV shell-type remnants at GeV energies with Fermi-LAT: HESS J1731-347 and SN 1006* (25 + 5')

**G. Puehlhofer** – *Updated X-ray and multiwavelength view of the nonthermal supernova remnant HESS J1731-347* (15 + 5')

**T. Reposeur** – *Extended sources with Fermi-LAT* (15 + 5')

**A. J. Van Marle** – *Combining PIC and MHD to model particle acceleration in astrophysical shocks* (25 + 5')

*Discussion session – round table*

\* **h. 19:30** – *Conference dinner at Restaurant “El Olivo”, 32 Rue du Vaugueux, 14000 Caen*

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**Thursday 9:30 → 12:30 : plenary session (Maison d’hôtes)**

**C. Palenzuela** – *Constraints on the neutron star equation of state from multi-messenger observations of binary mergers* (35 + 10')

**J. Guilet** – *How to form a millisecond magnetar? Magnetic field amplification in proto-neutron stars* (25 + 5')

\* *10:45-11:15 Coffee break*

**A. Djannati-Atai** – *Pulsars in the Very High Energy gamma-ray domain* (35 + 10')

**D. Smith** – *Gamma-ray pulsars* (25 + 5')

*Final remarks* (10')

\* *12:40 – 14:00 Lunch at GANIL restaurant*