

# Marrakesh International Workshop on Random Fractals and Markov Processes

November 21-26, 2022, Cadi Ayyad University Marrakesh, Morocco

<i>Monday 21 November 2022</i>	
8:00 - 9:00	Welcome and Registration
9:00-10:00	Coffee Break
10:00 -13:00	Opening :
13:00 - 15:00	Break
15:00 - 15:45	Peter IMKELLER : On the geometry of some rough paths
5 min Break	
15:50 - 16:35	Peter IMKELLER : On the geometry of some rough paths
16:35 - 17:00	Coffee Break
17:00 - 17:45	Yimin XIAO : Fractal and Regularity Properties of Gaussian Random Fields (with applications to SPDEs)
5 min Break	
17:50 - 18:35	Yimin XIAO : Fractal and Regularity Properties of Gaussian Random Fields (with applications to SPDEs)
<i>Tuesday 22 November 2022</i>	
9:00 - 9:45	Mohamed ERRAOUI : Local times
5 min Break	
9:50 - 10:35	José LUÍS DA SILVA: Green Measures for nonlocal jump generators
10:35 - 11:00	Coffee Break
Talk Session	
11:00 - 11:20	Yassine NACHIT : Local times for systems of non-linear stochastic heat equations
11:20 - 11:40	Mohamed AIT OUAHRA : LIMIT THEOREM AND LIL FOR SOME ADDITIVE FUNCTIONALS ASSOCIATED TO FBM AND RIEMANN-LIOUVILLE PROCESS
11:40 - 12:00	Mohammed ELHACHEMY: Parabolic IPDEs with nonlinear Neumann boundary conditions : approach via Double Reflected Generalized BSDEs with jumps
12:00 - 12:20	Anas OUKNINE : Symétrie de Lie pour le modèle de Longstaff Schwartz
12:20 - 15:00	Break
15:00 - 15:45	Yimin XIAO : Fractal and Regularity Properties of Gaussian Random Fields (with applications to SPDEs)
5 min Break	
15:50 - 16:35	Yimin XIAO : Fractal and Regularity Properties of Gaussian Random Fields (with applications to SPDEs)
16:35 - 17:00	Coffee Break
Talk Session	
17:00 - 17:40	Ivan NOURDIN : Spectral central limit theorem for additive functionals of isotropic and stationary Gaussian fields
17:40 - 18:20	Mohamed EL MACHKOURI: On stable limits for Markov chains

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## *Wednesday 23 November 2022*

9:00 - 9:45	Peter IMKELLER : On the geometry of some rough paths
5 min Break	
9:50 - 10:35	Peter IMKELLER : On the geometry of some rough paths
10:35 - 11:00	Coffee Break
Talk Session	
11:00 - 11:40	Antoine Marie BOGSO : Path-by-path uniqueness of multidimensional sde's on the plane with irregular non-monotone coefficients
11:40 - 12:00	Lahcen DOUGE : The Bahadur representation of sample quantiles for associated sequences
12:00 - 12:20	Abderrahim ASLIMANI : ON THE PARTITION THEOREM OF THE EXCESSIVE FUNCTIONS VIA INTEGRAL REPRESENTATION

## *Thursday 24 November 2022*

9:00 - 9:45	Yimin XIAO : Fractal and Regularity Properties of Gaussian Random Fields (with applications to SPDEs)
5 min Break	
9:50 - 10:35	Yimin XIAO : Fractal and Regularity Properties of Gaussian Random Fields (with applications to SPDEs)
10:35 - 11:00	Coffee Break
Talk Session	
11:00 - 11:40	Zbigniew PALMOWSKI : Implicit control for L'evy-type dividend-impulse problem
11:40 - 12:00	Samir EL MOURCHID : On a probabilistic large-time behavior of a chaotic linear system
12:00 - 12:20	Mohammed LOURIKI : L'evy Process Pinned at Random Time for Modelling of the Financial Information
12:20 - 15:00	Break
15:00 - 15:45	Youssef OUKNINE : Markov Processes
5 min Break	
15:50 - 16:35	Youssef OUKNINE : Markov Processes
16:35 - 17:00	Coffee Break
Talk Session	
17:00 - 17:20	Abdelkarim OUALAID : Reflected BSDE associated to jump Markov processes and application to PDEs.
17:20 - 17:40	Soukaina DOUISSI : Asymptotics of Yule's nonsense correlation for Ornstein-Uhlenbeck paths: a Wiener chaos approach
17:40 - 18:00	Imane JARNI : Stochastic differential equations with respect to optional semimartingales and two reflecting regulated barriers
18:00 - 18:20	Kaoutar NASROALLAH : Reflected BSDEs with jumps in non-convex domains

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## Friday 25 November 2022

9:00 - 9:45	Peter IMKELLER : On the geometry of some rough paths
5 min Break	
9:50 - 10:35	Peter IMKELLER : On the geometry of some rough paths)
10:35 - 11:00	Coffee Break
Talk Session	
11:00 - 11:40	Joseph NGATCHOU-WANDJI : Testing time-dependent coefficients time series models with application to weak change study
11:40 - 12:00	Mohamed Salah Eddine ARROUCH : ON THE CHANGE POINT TEST IN THE CHARN MODEL
12:00 - 12:20	Lahoucine HOBAD : Shrinkage estimation with stochastic analysis and Skorokhod's problem
12:20 - 12:40	Hafssa KROUMBI : Hidden Markov Model: Rare events
12:40 - 15:00	Break
15:00 - 15:45	Mohamed ERRAOUI : Local times
5 min Break	
Talk Session	
15:50 - 16:10	Houssam BOUGHABI : Financial crash with a long memory of volatility: fractional volatility in a bubble atmosphere
16:10 - 16:30	Monir CHADAD : Reflected mixed stochastic delay differential equation on the half-line
16:30 - 17:00	Coffee Break
17:00 - 17:20	Badr ELMANSOURI : Discontinuous generalized Backward stochastic differential equations with default terminal times
17:20 - 17:40	Nadia ASRIR : Sliced Inverse Regression via Non sparse Canonical Thresholds
17:40 - 18:00	Fatima-Ezzahra FARAH : Drift estimation of the non-ergodic fractional Ornstein-Uhlenbeck process with periodic mean
18:00 - 18:20	Aissa SGHIR: A Clark-Ocone formula for the local time of the Brownian motion

## Saturday 26 November 2022

Talk Session	
9:00 - 9:20	Soufiane MOUCHTABIH : Penalization for a degenerate semilinear PDE with a nonlinear Neumann boundary condition.
9:20 - 9:40	El Mehdi FARAH : Dynamics of SIQR epidemic model with general incidence rate
9:40 - 10:00	Hajar AHALLI : A law of the iterated logarithm for some additive functionals of some self-similar processes related to fractional Brownian motion Via the strong approximation.
10:00 - 10:20	Manal JAKANI : Approximation of reflected SDEs in time-dependent domains and applications to Generalized BSDEs and PDEs with nonlinear boundary conditions in time-dependent domains
10:20 - 10:50	Coffee Break
10:50 - 12:00	Closing