

Nesin Mathematics Village

Summer 2018



Modern Mathematics Methods in Physics Summer School June 18-29, 2018 Nesin Mathematics Village — Şirince, Izmir, Turkey

Diffeology

Patrick Iglesias-Zemmour

Diffeological spaces, Homotopy, Fiber Bundles, Coverings, Monodromy Theorem, Moment Map, Para-Symplectic Quotients, Geometric Quantization, symplectic Diffeology, Integration of Closed Forms and Paths Spaces, Virasoro Group and Souriau's Cocycle, Differential Calculus, De Rham Complex, Homotopic Invariance, Chain-Homotopy Operator, Stokes Formula.

Categories & Toposes

Urs Schreiber

Local Field Theory, Differentially Cohesive Infinity-Topos, Categories, Limits/Colimits, Adjoint Functors and Kan Extension, Categories of Pre-Sheaves, Simplicial Sets and Simplicial Pre-Sheaves, Simplicial Sheaves on The Site of Smooth Manifolds and Formal Manifolds... and Supermanifolds, Higher Pre-Quantization.

Non-Commutative Geometry

Murad Özaydın

C^* -Algebras, Gelfand-Naimark Duality, Vector Bundles, K-Theory, Serre-Swan Theorem, Quantum Tori, Noncommutative Quotients, Foliations, von Neumann Algebras, Morita Equivalence, Hopf Algebras and Quantum Groups, Affine, Projective and Derived Noncommutative Algebraic Geometry, Noncommutative Stone-Weierstrass Theorem, Cyclic Cohomology, Connes-Chern Character: Topological Index = Analytic Index, Spectral Triples.

We will be able to partially cover accomodation for approximately 30 participants. If you would want to apply for accomodation, the deadline for registration is the 30 of March 2018.

Registration: <https://matematikkoyu.org/etkinlik-detay.php?egitimkod=203>
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