

Index Theory and Complex Geometry Part I (16 Aug 2021–27 Aug 2021)

Name & Affiliation	Title of Talk
Pierre Albin University of Illinois Urbana-Champaign, USA	Dirac-type operators on stratified spaces (Video)
Fabrizio Bianchi University of Lille, France	Higher bifurcations for polynomial skew products (Video)
Jean-Michel Bismut Université Paris-Sud, France	<i>Distinguished Visitor Lecture Series</i> Coherent sheaves, Chern character, and RRG (Video)
Judith Brinkschulte University of Leipzig, Germany	Dynamical aspects of holomorphic foliations with ample normal bundle (Video)
Xianzhe Dai University of California Santa Barbara, USA	Analytic torsion for Witten deformation on noncompact manifolds (Video)
Hoang-Son Do Vietnam Academy of Science and Technology, Vietnam	Viscosity solutions to parabolic complex Monge-Ampère equations (Video)
Peter Ebenfelt University of California San Diego, USA	Obstruction flat rigidity of the standard CR 3-sphere (Video)
Teng Fei Rutgers University - Newark, USA	A geometric flow for Type IIA superstrings (Video)
Hao Guo Texas A&M University, USA	Higher A-hat genera for proper actions and positive scalar curvature (Video)
Pedram Hekmati The University of Auckland, New Zealand	Twisted torsion for finite group actions (Video)
Hendrik Herrmann Bergische Universität Wuppertal, Germany	\mathbb{G} -equivariant embedding theorems for CR manifolds of high codimension (Video)
Nigel Higson The Pennsylvania State University, USA	On Perrot's index cocycles (Video)
Peter Hochs Radboud University, The Netherlands	Index theory on generalised hyperbolic cusps (Video)

Name & Affiliation	Title of Talk
Chin-Yu Hsiao Institute of Mathematics, Academia Sinica, Taiwan	Geometric quantization on CR manifolds (Video)
Xiaojun Huang Rutgers University, USA	Bergman-Einstein metric over a normal Stein space with a compact strongly pseudo-convex boundary (Video)
Jun-Muk Hwang Institute for Basic Science, Korea	Minimal rational curves and 1-flat irreducible G-structures (Video)
Eiji Inoue RIKEN, Japan	Canonical metrics and Perelman's entropy in Kahler geometry (Video)
Lucas Kaufmann Institute for Basic Science, Korea	Random walks on $SL_2(\mathbb{C})$ (Video)
Sung Yeon Kim Institute for Basic Science, Korea	Effective Kohn algorithm for holomorphic subelliptic multipliers (Video)
Qifeng Li Institute for Basic Science, Korea	Unbendable rational curves of Goursat type and Cartan type
Bo Liu East China Normal University, China	Eta invariant and localization (Video)
Kefeng Liu University of California, Los Angeles, USA	Solving equations with Hodge theory (Video)
George Marinescu University of Cologne, Germany	On the singularities of the Bergman projections for lower energy forms on complex manifolds with boundary (Video)
Richard Melrose Massachusetts Institute of Technology, USA	<i>Distinguished Visitor Lecture Series</i> The Dirac-Ramond operator (Video)
Nordine Mir Texas A&M University, Qatar	Finite jet determination of CR maps of positive codimension (Video)
Ngoc-Cuong Nguyen Korea Advanced Institute of Science and Technology, Korea	The complex Sobolev space and Hölder continuous solutions to Monge-Ampère equations (Video)
Viet-Anh Nguyen University of Lille, France	Positive plurisubharmonic currents: Generalized Lelong numbers and Tangent theorems (Video)
Keiji Oguiso The University of Tokyo, Japan	Some aspects of real form problem of a smooth complex projective variety (Video)

Name & Affiliation	Title of Talk
Yūsuke Okuyama Kyoto Institute of Technology, Japan	Parabolic bifurcation loci in the dynamical moduli spaces of rational functions (Slides)
Martin Puchol Université Paris-Saclay, France	A comparison between the Bismut-Lott torsion and the Igusa-Klein torsion (Video)
Luca Rizzi The University of Tokyo, Japan	Fujita decomposition and Massey product for fibered varieties (Video)
Min Ru University of Houston, USA	Nevanlinna hyperbolicity for complex manifolds (Video)
Nikhil Savale University of Cologne, Germany	Bergman-Szegő kernel asymptotics in weakly pseudoconvex finite type cases (Video)
Shu Shen Sorbonne Université, France	The fried conjecture for admissible twists (Video)
Yanli Song Washington University in St. Louis, USA	Higher orbital integrals and APS index theorem (Video)
Laurent Stolovitch Université Côte d'Azur, France	Geometry of hyperbolic Cauchy-Riemann singularities and KAM-like theory for holomorphic involutions (Video)
Xiang Tang Washington University in St. Louis, USA	Higher orbital integrals and cyclic cohomology (Video)
Boris Vertman University of Oldenburg, Germany	Low energy resolvent on manifolds with fibered boundary (Video)
Hang Wang East China Normal University, China	A delocalized Riemann-Roch theorem for proper actions (Video)
Ben Weinkove Northwestern University, USA	The Chern-Ricci flow (Video)
Siye Wu National Tsinghua University, Taiwan	Anomaly and symmetry breaking in quantisation (Video)
Song-Yan Xie Academy of Mathematics and Systems Science, China	On Ahlfors currents (Video)
Zhizhang Xie Texas A&M University, USA	Index theory and Gromov's conjectures on positive scalar curvature (Video)

Name & Affiliation	Title of Talk
Ken-Ichi Yoshikawa Kyoto University, Japan	Degeneration of Riemann surfaces and small eigenvalues of Laplacian (Video)
Guoliang Yu Texas A&M University, USA	Quantitative K-theory and decay of scalar curvature (Video)
Yeping Zhang Korea Institute for Advanced Study, Korea	Bbirational invariance of the BCOV invariant (Video)
Xiangyu Zhou Academy of Mathematics and Systems Science, China	Siu's lemma: generalizations and applications (Video)

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