



# 2023 Taipei Conference on Complex Geometry

*Dec. 11-15, Auditorium, 6F, Astro-Math.  
Building, No. 1, Section 4, Roosevelt Road  
(NTU campus), Taipei City, Taiwan*

## SPEAKERS

Masanori Adachi (Shizuoka University)  
Dan Coman (Syracuse University)  
Siarhei Finski (École Polytechnique)  
Subhro Ghosh (National University of Singapore)  
Purvi Gupta (Indian Institute of Science)  
Hendrik Herrmann (University of Wuppertal)  
Tomoyuki Hisamoto (Tokyo Metropolitan University)  
Xiaojun Huang (Rutgers University)  
Dano Kim (Seoul National University)  
Sung-Yeon Kim (IBS Center For Complex Geometry)  
Semyon Klevtsov (Université Paris Cité)  
Hsueh-Yung Lin (National Taiwan University)  
Bingyuan Liu (University of Texas Rio Grande Valley)  
Ngaiming Mok (The University of Hong Kong)  
Viet-Anh Nguyen (University of Lille)  
Stephanie Nivoche (Université Côte d'Azur)  
Chung-Ming Pan (Institut de Mathématiques de Toulouse)  
Nikhil Savale (University of Cologne)  
Ood Shabtai (Université Paris Cité)  
Shu Shen (Sorbonne University)  
Yusaku Tiba (Ochanomizu University)  
Duc-Viet Vu (University of Cologne)  
Xiaowei Wang (Rutgers University)

## ORGANIZERS

Chin-Yu Hsiao (Academia Sinica)  
Xiaonan Ma (Université Paris Cité)  
George Marinescu (University of Cologne)



中央研究院  
ACADEMIA SINICA



# Agenda

	<b>Dec. 11 (Mon)</b>
<b>08:30 – 09:00</b>	Registration
<b>09:00 – 09:10</b>	Opening
<b>09:10 – 10:00</b>	Ngaiming Mok
<b>10:00 – 10:20</b>	Coffee Break
<b>10:20 – 11:10</b>	Stephanie Nivoche
<b>11:30 – 12:20</b>	Sung-Yeon Kim
<b>12:20 – 14:00</b>	Lunch
<b>14:00 – 14:50</b>	Semyon Klevtsov
<b>14:50 – 15:10</b>	Tea Time
<b>15:10 – 16:00</b>	Tomoyuki Hisamoto
<b>16:20 – 17:10</b>	Subhro Ghosh
<b>17:30 – 18:30</b>	Reception

# Agenda

	<b>Dec. 12 (Tue)</b>	<b>Dec. 13 (Wed)</b>	<b>Dec. 14 (Thu)</b>	<b>Dec. 15 (Fri)</b>
<b>09:00 – 09:50</b>	Xiaowei Wang	Viet-Anh Nguyen	Masanori Adachi	Dan Coman
<b>09:50 – 10:10</b>	Coffee Break	Coffee Break	Coffee Break	Coffee Break
<b>10:10 – 11:00</b>	Duc-Viet Vu	Shu Shen	Bingyuan Liu	Hendrik Herrmann
<b>11:20 – 12:10</b>	Dano Kim	Yusaku Tiba	Purvi Gupta	Xiaojun Huang
<b>12:10 – 14:00</b>	Lunch	Lunch	Lunch	Lunch
<b>14:00 – 14:50</b>	Siarhei Finski	Free discussions	Nikhil Savale	Say good-bye
<b>14:50 – 15:10</b>	Tea Time		Tea Time	
<b>15:10 – 16:00</b>	Hsueh-Yung Lin		Ood Shabtai	
<b>16:20 – 17:10</b>	Chung-Ming Pan			



**MASANORI ADACHI  
(SHIZUOKA UNIVERSITY)**

On a Levi-flat hypersurface in  
hyperbolic Inoue surfaces



**DAN COMAN  
(SYRACUSE UNIVERSITY)**

Restricted spaces of  
holomorphic sections vanishing  
along subvarieties (slides)



**SIARHEI FINSKI  
(ÉCOLE POLYTECHNIQUE)**

On the geometry at infinity on  
the space of Kähler potentials  
(slides)



**SUBHRO GHOSH  
(NATIONAL UNIVERSITY OF  
SINGAPORE)**

Holes among random zeros:  
forbidden regions, large  
deviations and potential theory  
(slides)



**PURVI GUPTA  
(INDIAN INSTITUTE OF  
SCIENCE)**

A characterization of rational  
convexity in Stein and projective  
manifolds



**HENDRIK HERRMANN  
(BERGISCHE UNIVERSITÄT  
WUPPERTAL)**

Spherical Embeddings for  
Strongly Pseudoconvex CR  
Manifolds (slides)



**XIAOJUN HUANG  
(RUTGERS UNIVERSITY)**

Regular types, Bloom conjecture  
and D'Angelo conjecture (slides)



**TOMOYUKI HISAMOTO  
(TOKYO METROPOLITAN  
UNIVERSITY)**

Quantization of the Kähler-Ricci  
flow and the optimal degener-  
ation for a Fano manifold



**DANO KIM  
(SEOUL NATIONAL  
UNIVERSITY)**

$L^2$  extension of holomorphic  
functions for log canonical pairs  
(slides)



**SUNG-YEON KIM**  
(IBS CENTER FOR COMPLEX  
GEOMETRY)

Holomorphicity of totally  
geodesic Kobayashi isometries  
between bounded symmetric  
domains



**SEMYON KLEVTSOV**  
(UNIVERSITY OF  
STRASBOURG)

Chern classes of the Laughlin  
bundles in Fractional Quantum  
Hall effect (slides)



**HSUEH-YUNG LIN**  
(NATIONAL TAIWAN  
UNIVERSITY)

Dynamical filtrations



**BINGYUAN LIU**  
(UNIVERSITY OF TEXAS RIO  
GRANDE VALLEY)

The Diederich–Fornæss index  
and the  $\bar{\partial}$ -Neumann problem  
(slides)



**NGAIMING MOK**  
(THE UNIVERSITY OF HONG  
KONG, TBC)

Starting with holomorphic  
isometries: a differential-  
geometric approach to  
functional transcendence



**VIET-ANH NGUYEN**  
(UNIVERSITY OF LILLE)

The generalized Lelong numbers  
and intersection theory (slides)



**STEPHANIE NIVOCHÉ**  
(UNIVERSITÉ CÔTE D'AZUR)

Behaviour of multipoled  
pluricomplex Green's functions in  
connection with algebraic  
geometry problems (slides)



**CHUNG-MING PAN**  
(INSTITUT DE  
MATHÉMATIQUES DE  
TOULOUSE)

KÄHLER-EINSTEIN METRICS ON  
FAMILIES OF FANO VARIETIES  
(slides)



**NIKHIL SAVALE**  
(UNIVERSITY OF COLOGNE)

The eta invariant of a circle  
bundle on a Fano manifold  
(slides)



**OOD SHABTAI**  
(UNIVERSITÉ PARIS CITÉ)

Off-diagonal estimates of partial Bergman kernels on  $S^1$ -symmetric Kähler manifolds  
(slides)



**SHU SHEN**  
(SORBONNE UNIVERSITY)

Coherent sheaves, superconnection, and the Riemann-Roch-Grothendieck formula. (slides)



**YUSAKU TIBA**  
(OCHANOMIZU UNIVERSITY)

ASYMPTOTIC ESTIMATES OF HOLOMORPHIC SECTIONS ON BOHR-SOMMERFELD LAGRANGIAN SUBMANIFOLDS (slides)



**DUC-VIET VU**  
(UNIVERSITY OF COLOGNE)

Regularity of volumes of big cohomology classes



**XIAOWEI WANG**  
(RUTGERS UNIVERSITY)

MOMENT MAP AND CONVEX FUNCTION