SCMS

2026 Workshop on Algebraic Geometry

26-30 October, 2026

Gu Lecture Hall
Shanghai Center for Mathematical Sciences
Jiangwan Campus, Fudan University

Participant Guide

Shanghai, China

Welcome to SCMS

2026 Workshop on Algebraic Geometry

We look forward to welcoming you to the Shanghai Center for Mathematical Sciences for five days of talks and discussions in algebraic geometry.



This guide brings together the programme, speaker information and practical details for your visit to Fudan University.

Dates

Monday to Friday
26-30 October 2026

Venue

Gu Lecture Hall, 2nd floor
Shanghai Center for Mathematical Sciences
Jiangwan Campus, Fudan University
2005 Songhu Road, Yangpu District, Shanghai 200438, China

Organizers

Meng Chen · Zhi Jiang · Zhiyuan Li

Sponsors

Shanghai Center for Mathematical Sciences
National Natural Science Foundation of China

Contact

Academic enquiries

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Workshop arrangements

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Invited Speakers

Olivier Debarre
Université Paris Cité

Kieran O'Grady
Sapienza University of Rome

Baohua Fu
Chinese Academy of Sciences

Keiji Oguiso
The University of Tokyo

Jun-Muk Hwang
IBS Center for Complex Geometry

Wenhao Ou
Chinese Academy of Sciences

Atsushi Ito
University of Tsukuba

Zhiyu Tian
Peking University

Yujiro Kawamata
The University of Tokyo

Claire Voisin
CNRS, Institut de Mathématiques de Jussieu-Paris Rive Gauche

Hsueh-Yung Lin
Taiwan University

Junyi Xie
Peking University

Jie Liu
Chinese Academy of Sciences

Qizheng Yin
Peking University

Laurent Manivel
CNRS, Université Aix-Marseille

Schedule

All times are Beijing Time (UTC+8). All talks take place in Gu Lecture Hall.

Time	Monday 26 October	Tuesday 27 October	Wednesday 28 October	Thursday 29 October	Friday 30 October
09:40-10:00	Registration	Free Discussion			
10:00-11:00	**Claire Voisin**	**Jun-Muk Hwang**	**Yujiro Kawamata**	**Kieran O'Grady**	**Keiji Oguiso**
11:15-12:15	**Zhiyu Tian**	**Junyi Xie**	**Hsueh-Yung Lin**	**Baohua Fu**	**Wenhao Ou**
13:30-14:00	Tea break	Tea break	Free Discussion	Tea break	Free Discussion
14:00-15:00	**Olivier Debarre**	Short talks 14:00-14:30 **Haesong Seo** 14:30-15:00 **Songsong Huang**		**Laurent Manivel**	**Jie Liu**
15:30-16:30	**Qizheng Yin**	Short talks 15:30-16:00 **Xin Yang** 16:00-16:30 **Ziwei Lu**		**Atsushi Ito**	Free Discussion
16:30-17:30	Reception	Free Discussion			

Short talks last 30 minutes, including questions.

Please follow updates from the organizers.

Invited Talks

Olivier Debarre | Université Paris Cité

Title: Bézout's theorem for abelian varieties

Abstract: I'll report on joint work with Ben Moonen. The main result is that if A is an absolutely simple abelian variety over some field and X, Y are subvarieties of A, the dimension of their sum $X+Y$ is the expected one: it equals the minimum of $\dim(A)$ and $\dim(X)+\dim(Y)$. In characteristic 0, there is a very elementary geometric proof, but that argument breaks down in positive characteristic. Instead, we prove this result as a consequence of a theorem about perverse sheaves, building upon work of Krämer and Weissauer.

Baohua Fu | Chinese Academy of Sciences

Title: Heisenberg symmetric varieties

Abstract: I'll talk about a joint work with Jun-Muk Hwang in which we define Heisenberg symmetric varieties as an analogue of Euler symmetric varieties. Particularly interesting examples consist of adjoint varieties, which is the central object of our study.

Jun-Muk Hwang | IBS Center for Complex Geometry

Title: Fundamental forms and infinitesimal symmetries of projective varieties

Abstract: We give a bound on the dimension of the linear automorphism group of a projective variety in terms of its fundamental forms at a general point. Moreover, we show that the bound is achieved precisely when the projective variety is an Euler-symmetric variety. As a by-product, we determine the Lie algebra of infinitesimal automorphisms of an Euler-symmetric variety. This is a joint work with Qifeng Li.

Atsushi Ito | University of Tsukuba

Title: Remarks on basepoint-freeness thresholds of polarized abelian surfaces

Abstract: The basepoint-freeness threshold, introduced by Jiang and Pareschi, is an invariant of polarized abelian varieties related to projective normality and higher syzygies. I will show that Rojas's upper bound, expressed in terms of Pell's equation, is sharp for abelian surfaces of Picard number one. I will also explain how resolutions by semihomogeneous vector bundles yield an example with an irrational basepoint-freeness threshold.

Yujiro Kawamata | The University of Tokyo

Title: Non-commutative deformations of algebraic varieties and L_∞ algebras

Abstract: The deformations of compact complex manifolds are controlled by a differential graded Lie algebra (DGLA), the Dolbeault complex with values in the tangent sheaf. The integrability condition of almost complex structures is expressed by an equation containing terms up to degree 2, and becomes a Kodaira-Spencer equation, a Maurer-Cartan equation. If we consider non-commutative twisted deformations of algebraic varieties, then the corresponding equation contains terms up to degree 4. Then we wonder if they are controlled by an L_∞ algebra. Here we note that a DGLA is an L_∞ algebra whose higher bracket products vanish from degree 3. I will confirm this question in the case where there is no twisting. The proof relies on straight but complicated calculation by hand.

Hsueh-Yung Lin | Taiwan University

Title: The Cautis-Logvinenko conjecture

Abstract: Let G be a finite subgroup of $\mathrm{SL}(3,\mathbb{C})$. Under the Bridgeland-King-Reid equivalence, we show that for any irreducible G-representation V, the image of V supported at the origin of $\mathbb{C}^3$ is a shift of a coherent sheaf on the G-Hilbert scheme of points on $\mathbb{C}^3$. We further determine the degree of the shift and the dimension of the support. This provides a first step toward a derived Reid's recipe for arbitrary finite subgroups of $\mathrm{SL}(3,\mathbb{C})$. (Joint work with A. Craw and R. Yamagishi.)

Jie Liu | Chinese Academy of Sciences

Title: Intersection of two quadrics and the Hitchin morphism

Abstract: A classical result of Newstead shows that the moduli space of rank two stable vector bundles with fixed determinant of odd degree over a genus two curve is isomorphic to a smooth three dimensional complete intersection X of two quadrics. In this setting, the Hitchin morphism induces a Lagrangian fibration over the cotangent bundle of X. In this talk, I will present a generalization of this phenomenon to higher dimensions. The results are based on joint works with Arnaud Beauville, Antoine Etesse, Andreas Höring, Claire Voisin, and Vladimiro Benedetti.

Laurent Manivel | CNRS, Université Aix-Marseille

Title: New projective models of $\mathrm{K3}$ surfaces

Abstract: Since Mukai's seminal works, projective models of $\mathrm{K3}$ surfaces have been found for many low genera. For genus 16 the ambient space is a quiver moduli space related to twisted cubic rational curves. I will report on the work of Junyu Meng about several new models involving such quiver moduli spaces.

Kieran O'Grady | Sapienza University of Rome

Title: Every hyper-Kähler manifold of Type $K3^{[a^2+1]}$ is a component of a moduli space of stable bundles of projective spaces on a hyper-Kähler manifold of Type $K3^{[2]}$.

Abstract: We will give a more precise formulation of the result in the title and of related results, and we will sketch the proof.

Keiji Oguiso | The University of Tokyo

Title: On multiple fibers of a Lagrangian fibration on a hyperkähler manifold

Abstract: My talk is based on a joint work with Yoonjoo Kim and Evgeny Shinder. About 15 years ago, Jun-Muk Hwang and I classified possible multiple fibers of a Lagrangian fibration in codimension one over the polydisk with realizability. After briefly recalling this result, we show that there is no multiple fiber, in codimension one, of a Lagrangian fibration on a compact hyperkähler manifold under the assumption that the base space is a projective space.

Wenhao Ou | Chinese Academy of Sciences

Title: Orbifold modifications of complex analytic spaces.

Abstract: For a compact complex analytic space, we construct a proper bimeromorphic modification, which is an isomorphism over the locally trivial orbifold locus. This is based on a joint work with János Kollár.

Zhiyu Tian | Peking University

Title: One-cycles (and 0-cycles) on rationally connected varieties over complex numbers (and Laurent fields)

Abstract: The integral Hodge conjecture for one-cycles on rationally connected varieties over the complex numbers was proposed by Voisin and is known in some cases. The injectivity of the cycle class map of 0-cycles on rationally connected varieties defined over Laurent fields has been extensively studied, and recently shown to follow from Voisin's conjecture. The goal of this talk is to explain the interplay between these two questions and their generalizations. In particular, I will explain how one can go back and forth and prove some non-trivial new results on both.

Claire Voisin | CNRS, Institut de Mathématiques de Jussieu-Paris Rive Gauche

Title: On the Chow ring of very general abelian varieties and a question of Pirola

Abstract: On the moduli space of genus 4 curves, there is a rational section of the Kummer fibration (that is, the Jacobian fibration mod. $\pm\mathrm{Id}$) given by the difference of the two trigonal divisors. We prove that any rational section of the Kummer fibration is a multiple of this section, solving in the affirmative a question asked by Pirola. A first step for the proof is a result concerning the Chow ring of a very general abelian variety A of dimension at least 4, or very general Jacobian A in genus 4. We prove that a divisor D on A that satisfies $D^2=0$ in $\mathrm{CH}^2(A)$ must be of torsion.

Junyi Xie | Peking University

Title: Exceptional maps and abelian points in backward orbits

Abstract: Let f be a polarized endomorphism on a normal projective variety X over a number field K. Let x be a point in $X(K)$. We show that the field generated by the backward orbits of x is virtually abelian if and only if f is exceptional with CM and x is preperiodic. The special case of our result in dimension one answers a conjecture of Andrews and Petsche.

Qizheng Yin | Peking University

Title: The cohomology ring of compactified Jacobians: an update

Abstract: Studying the cohomology of compactified Jacobians is important for understanding curve singularities. For any integral curve with planar singularities, conjectures of Maulik-Yun, Rennemo, and Shende predict a natural multiplicative bigrading on the cohomology ring of the compactified Jacobian. I will discuss the current status of the problem, the challenges, and a new approach towards the construction of such a multiplicative bigrading. Based on joint work in progress with Davesh Maulik and Junliang Shen.

Short Talks

Haesong Seo | Research Institute of Basic Sciences, Seoul National University

Title: Subvarieties of hypersurfaces of spherical varieties

Abstract: In 1970, Kobayashi predicted that a general hypersurface $X \subset \mathbb{P}^n_{\mathbb{C}}$ of sufficiently large degree is hyperbolic, i.e., there is no entire curve $f : \mathbb{C} \to X$. The Green-Griffiths-Lang conjecture predicts that a smooth projective variety X is hyperbolic if and only if it is Lang algebraically hyperbolic, i.e., every subvariety of X is of general type. In this context, Demailly introduced another concept of algebraic hyperbolicity through a uniform degree-genus inequality for curves. The algebraic Kobayashi program has recently been completely settled by Pacienza, Coskun-Riedl, Yeong, and Lou-Zhao. In this talk, we will present our recent result extending the algebraic Kobayashi conjecture to spherical varieties. We will also discuss an almost complete classification of Demailly/Lang algebraic hyperbolicity for hypersurfaces of rational homogeneous varieties with Picard number one. This is joint work with Minseong Kwon.

Songsong Huang | SCMS, Fudan University

Title: Degree of irrationality of abelian surfaces

Abstract: For an n-dimensional variety X, its degree of irrationality $\mathrm{irr}(X)$ is defined to be the minimal degree of a dominant rational map $X \dashrightarrow \mathbb{P}^n$. In this talk, we completely determine the degree of irrationality of complex abelian surfaces. More precisely, a complex abelian surface A has degree of irrationality 3 if and only if it admits a polarization of type $(1,1)$, $(1,2)$, $(1,3)$, or $(1,6)$; in all other cases, $\mathrm{irr}(A) = 4$. This talk is based on joint work with Zhi Jiang and Xin Yang.

Xin Yang | SCMS, Fudan University

Title: Euler Characteristics of Graded de Rham Complexes of Hodge Modules

Abstract: Motivated by Hodge-theoretic refinements of the Singer–Hopf type conjecture raised by Arapura, Maxim and Wang, we discuss our recent progress on the nonnegativity of Euler characteristics of Hodge graded de Rham complexes on smooth projective varieties with nef cotangent bundles or having generically large fundamental representations.

Ziwei Lu | SCMS, Fudan University

Title: Derived isogenies between abelian varieties

Abstract: The notion of derived isogeny provides a natural framework for comparing smooth projective varieties up to rational cohomological equivalence. In this talk, we explore how this categorical concept relates to classical isogenies between abelian varieties. The key machinery behind this characterization is the twisted derived Torelli theorem, which generalizes the classical results of Orlov and Polishchuk. This talk is based on joint work with Zhiyuan Li and Zhichao Tang.

Practical Information

Campus access

Please bring the **ID card, passport or Mainland Travel Permit used for registration**. **Your identification should match your registration details. Campus entry arrangements for the workshop are to be confirmed.**

Tea breaks

Tea breaks are scheduled for **13:30-14:00** on **Monday 26 October**, **Tuesday 27 October** and **Thursday 29 October**, on the **2nd floor of SCMS**.

Wireless internet

Eduroam is available on campus for visitors whose home institution participates. **Use your home institution credentials.**

Workshop guest Wi-Fi

Username: 2026worksh@guest

Password: Scms2026
Validity period: **26-30 October 2026**

SCMS opening hours

Provisional hours: **Monday-Friday, 09:00-17:00**.

Access outside these hours may require a keycard.

Accommodation and Dining

Fraser Place

Proposed accommodation for invited speakers.
Fraser Place Wujiaochang Shanghai
1258 Yinhang Road, Yangpu District, Shanghai

SCMS Guest House

Proposed accommodation for some registered participants.
Adjacent to Gate 3 of Jiangwan Campus, just outside the campus.
Telephone: +86-21-31243777

The entrance gate is normally locked. Please ring the bell on arrival.

North Dining Hall

Vouchers are valid for **breakfast, lunch and dinner** from **26-30 October 2026** at **North Dining Hall** on Jiangwan Campus（江湾北食堂）, excluding the Chinese Northwest-style counters on the 1st floor, the buffet counter and the Peking Duck counter on the 3rd floor.

Provisional serving hours
Breakfast **06:30-09:00** | Lunch **10:30-13:00** | Dinner **16:30-19:00**

Other dining options

Old Dining Hall is another on-campus option; visitor access and payment arrangements should be checked locally. Restaurants are also available at U-Fun near Gate 3 and in the Wujiaochang area.

For Wujiaochang, take Metro Line 10 southbound to Wujiaochang or Jiangwan Stadium. Please check meal-voucher acceptance before ordering.

Transportation

From Pudong International Airport

PVG | Metro Line 2, then Line 10

Take Metro Line 2 to East Nanjing Road (Nanjing Dong Lu), then transfer to Line 10 towards Jilong Road. Get off at Guofan Road for the conference venue, or Xinjiangwancheng for the accommodation area.

From Hongqiao Airport or Hongqiao Railway Station

SHA / Hongqiao Railway Station | Metro Line 10

Take Metro Line 10 towards Jilong Road. Use Guofan Road for the venue, or Xinjiangwancheng for Fraser Place and SCMS Guest House. Line 10 serves both Hongqiao airport terminals and Hongqiao Railway Station.

The final walk

For SCMS, leave Guofan Road station via **Exit 3** and follow signs to **Gate 2 of Jiangwan Campus**. Continue to the SCMS building and Gu Lecture Hall on the 2nd floor.

For accommodation, Xinjiangwancheng station serves the Gate 3 and Yinhang Road area. Fraser Place and SCMS Guest House are within walking distance; **allow approximately 10 minutes, depending on your exit and destination.**

By taxi

Use the official airport or railway-station taxi rank. For the conference venue, give the driver the destination below. Journey times and fares depend on traffic and the route.

Shanghai Center for Mathematical Sciences
Fudan University, Jiangwan Campus, Gate 2
2005 Songhu Road, Yangpu District, Shanghai

Reminders

Do not expect all the taxi drivers to speak English, and be sure to carry your destination's name or address in Chinese.

A valid passport or national ID card is always required for check-in in a hotel.

Swimming or fishing in the lakes on campus is prohibited!

Emergency

In case of emergency, please contact:

Building Security: +86-021-31243893
Campus Security: +86-021-65642220
Police: 110
Ambulance: 120

Campus and Nearby Area



Schematic map, not to scale. Dashed lines show general walking connections. Follow campus signs for the exact route and accessible entrances.

1 SCMS and Gu Lecture Hall 2 North Dining Hall 3 Old Dining Hall
4 SCMS Guest House 5 U-Fun 6 Fraser Place

Gu Lecture Hall is on the 2nd floor of SCMS. The Guest House entrance is outside Gate 3; ring the bell on arrival.

Thank you
for attending!