

# Algebraic Geometry 2000, Azumino

**Period:** July 20–30, 2000

**Place:** Izumigo Plaza Hotel Azumino, Nagano, Japan

## Program:

### July 20 (Thursday)

- 09:40 – 10:40 **Phillip Griffiths** (Talk was given by M. Green)  
Tangent spaces to the space of Algebraic cycles
- 11:00 – 12:00 **Mark Green**  
Periods of Abel-Jacobi maps and spread
- 15:00 – 16:00 **Masanori Asakura**  
On the  $K_1$ -groups of algebraic curves
- 16:20 – 17:20 **Morihiko Saito**  
On a refined cycle map

### July 21 (Friday)

- 09:40 – 10:40 **Kazuya Kato**  
Moduli of logarithmic Hodge structures and period maps I  
(Generalizations of theories of Mumford, Borel-Serre, Griffiths)
- 11:00 – 12:00 **Sampei Usui**  
Moduli of logarithmic Hodge structures and period maps II  
(Generalizations of theories of Mumford, Borel-Serre, Griffiths)
- 15:00 – 16:00 **Shuji Saito**  
Periods of integral of degenerating hypersurfaces and logarithmic  
Torelli problem
- 16:20 – 17:20 **Bert van Geemen**  
Half-twists of Hodge structures of CM-type
- 17:40 – 18:40 **Steven Zucker**  
The reductive Borel-Serre as an algebraic variety

### July 22 (Saturday)

- 09:40 – 10:40 **Hélène Esnault**  
Riemann-Roch problems for linear differential equations I
- 11:00 – 12:00 **Spencer Bloch**  
Riemann-Roch problems for linear differential equations II
- 15:00 – 16:00 **Claire Voisin**  
Nori connectivity theorem and regulator maps
- 16:20 – 17:20 **Stefan Müller-Stach**  
On  $K_2$  of an algebraic surface
- 17:40 – 18:40 **Joseph Steenbrink**  
Remarks about the cohomology of discriminant complements

### July 24 (Monday)

- 09:40 – 10:40 **Kazuhiro Konno**  
A note on canonical algebras on surfaces
- 11:00 – 12:00 **Nick Shepherd-Barron**  
Isomorphism classes in local moduli spaces
- 15:00 – 16:00 **Tadashi Ashikaga**  
Remarks on degenerations of curves
- 16:20 – 17:20 **Koji Ohno**  
On degenerations of algebraic surfaces with Kodaira dimension zero without semi-stable assumption

### July 25 (Tuesday)

- 09:40 – 10:40 **Shigeru Mukai**  
Elementary moduli construction without quotient scheme
- 11:00 – 12:00 **Eyal Markman**  
Hyperkahler varieties; their reflections and monodromy
- 15:00 – 16:00 **Ken-ichi Yoshikawa**  
K3 surfaces with involution, Analytic torsion and Automorphic Forms on the Moduli Space
- 16:20 – 17:20 **Shigeyuki Kondo**  
A ball quotient structure for the moduli of curves of genus 3 and 4

### July 26 (Wednesday)

- 09:40 – 10:40 **Eduard Looijenga**  
A complete moduli space for rational elliptic fibrations
- 11:00 – 12:00 **Masanori Ishida**  
Intersection complexes of toric varieties
- 15:00 – 16:00 **Valery Alexeev**  
Moduli of stable maps with group action
- 16:20 – 17:20 **Yoshinori Namikawa**  
Complex symplectic varieties

### July 28 (Friday)

- 09:40 – 10:40 **Arthur Ogus**  
The Poincaré lemma and its variations
- 11:00 – 12:00 **Mark Kisin**  
Endomorphisms of Logarithmic Schemes
- 15:00 – 16:00 **Wiesława Nizioł**  
 $K$ -theory of log schemes
- 16:20 – 17:20 **Chikara Nakayama**  
Ket sites, roundings and log  $C^\infty$ -functions

### July 29 (Saturday)

- 09:40 – 10:40 **Luc Illusie**  
On the local variation
- 11:00 – 12:00 **Takeshi Saito**  
Conductor formula of Bloch
- 15:00 – 16:00 **Ofer Gabber**  
Independence of  $l$  for intersection cohomology
- 16:20 – 17:20 **Kazuhiro Fujiwara**  
Integral cohomology of unitary Shimura varieties

**July 30 (Sunday)**

- 09:40 – 10:40 **Shinichi Mochizuki**  
The Hodge-Arakelov Theory of Elliptic Curves
- 11:00 – 12:00 **Christophe Breuil**  
 $p$ -torsion Hodge theory: A survey
- 15:00 – 16:00 **Takeshi Tsuji**  
Almost étale extensions and  $p$ -adic vanishing cycles
- 16:20 – 17:20 **Michel Raynaud**  
The fundamental group of complete curves in characteristic  $p$

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The Organizers:  
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Mark Green  
Luc Illusie  
Kazuya Kato  
Eduard Looijenga  
Shigeru Mukai  
Shuji Saito