

岡潔生誕百年記念多変数複素解析国際会議 京都/奈良 2001  
2001年10月30日~11月5日/11月6日~11月8日

**Memorial Conference of Kiyoshi Oka's Centennial  
Birthday on Complex Analysis in Several Variables  
Kyoto/Nara 2001**

**October 30–November 5, Kyoto/ November 6–8, Nara**

### 1. Organizing Committee

Honorary Chair: Toshio Nishino

(Professor Emeritus, Kyushu University)

**Kyoto Programm** (at RIMS Kyoto University):

Junjiro Noguchi (Chair, University of Tokyo)

Hiroataka Fujimoto (Kanazawa University)

Mikio Furushima (Kumamoto University)

Hideaki Kazama (Kyushu University)

Akio Kodama (Kanazawa University)

Kimio Miyajima (Kagoshima University)

Takeo Ohsawa (Nagoya University)

Hajime Tsuji (Tokyo Institute of Technology)

Tetsuo Ueda (Kyoto University)

Eric Bedford (Indiana)

Jean Pierre Demailly (Grenoble)

Klas Diederich (Wuppertal)

John Erik Fornaess (Michigan)

Bernard Shiffman (Johns Hopkins)

Nessim Sibony (Paris Sud)

Yum-Tong Siu (Harvard)

**Nara Programm** (joint with Nara Women's Library):

Hiroshi Yamaguchi (Chair, Nara Women's University)

Akira Takeuchi (Professor Emeritus Kyoto University)

Junjiro Noguchi (University of Tokyo)

Tetsuo Ueda (Kyoto University)

Takeo Ohsawa (Nagoya University)

Kazuko Matsumoto (Osaka Women's University)

## 2. Programms

Programm at Kyoto (October 30–November 5):

### October 30 (Tuesday)

- 9:30 – Opening
- 10:30 – 11:30 **Toshio Nishino** (Kyushu Univ., Japan)  
Mathematics of Professor Oka – a landscape in his mind –
- 13:30 – 14:30 **Kyoji Saito** (Kyoto Univ. RIMS, Japan)  
Holomorphic invariant theory for the elliptic Lie group (the inversion map to the period map for elliptic primitive forms)
- 14:50 – 15:20 **Hiroataka Fujimoto** (Kanazawa Univ., Japan)  
Some constructions of hyperbolic hypersurfaces in  $P^n(\mathbb{C})$
- 15:50 – 16:20 **Franz Forstneric** (Univ. of Ljubljana, Slovenia)  
The Oka principle for sub-elliptic mappings
- 16:30 – 17:00 **R. Michael Range** (State Univ. of New York, USA)  
On the decomposition of holomorphic functions by integrals and the local CR extension theorem

### October 31 (Wednesday)

- 9:00 – 10:00 **Hans Grauert** (Univ. Göttingen, Germany)  
A simple way to perform the Levi-Oka-Theory
- 10:30 – 11:30 **Mitsuhiro Shishikura** (Kyoto Univ., Japan)  
The rigidity in complex dynamics and the Teichmüller theory
- 13:30 – 14:00 **Jurgen Leiterer** (Humboldt-Univ., Germany)  
On Hausdorffness of the Dolbeault cohomology and an open problem concerning the Oka-Grauert principle for Banach space bundles
- 14:10 – 14:40 **Junjiro Noguchi** (Univ. of Tokyo, Japan)  
Intersection multiplicities of holomorphic and algebraic curves with divisors
- 14:50 – 15:20 **Satoru Shimizu** (Tohoku Univ., Japan)  
Prolongation of holomorphic vector fields on a tube domain and its applications
- 15:50 – 16:20 **Katsutoshi Yamanoi** (Kyoto Univ. RIMS, Japan)  
On Nevanlinna theory for holomorphic curves in Abelian varieties
- 16:30 – 17:00 **Seiki Mori** (Yamagata Univ., Japan)  
Holomorphic mappings and deficiencies
- 17:10 – 17:40 **Jawher El Goul** (Univ. Toulouse III, France)  
Demailly's 2-jet negativity of certain hyperbolic fibrations

### November 1 (Thursday)

- 9:00 – 10:00 **Masatake Kuranishi** (Columbia Univ., USA)  
Cartan geometry and complex analysis

- 10:30 – 11:30 **John Erik Fornaess** (Univ. of Michigan, USA)  
Short  $C^2$
- 13:30 – 14:00 **Tetsuo Ueda** (Kyoto Univ., Japan)  
Fixed points of polynomial automorphisms of  $C^n$
- 14:10 – 14:40 **Stephanie Nivoche** (Univ. Toulouse III, France)  
Proof of a Zahariuta's conjecture about a Kolmogorov's problem
- 14:50 – 15:20 **Takao Akahori** (Himeji Inst. of Tech., Japan)  
Flat connection over the parameter space of the versal family of CR structure
- 15:50 – 16:20 **John M. Lee** (Univ. of Washington, USA)  
Analysis on domains in strictly pseudoconvex CR manifolds
- 16:30 – 17:00 **Gen Komatsu** (Osaka Univ., Japan)  
Singularity and invariance of Sobolev-Bergman kernels of strictly pseudo-convex domains
- 17:10 – 17:40 **Kang-Tae Kim** (Pohang Univ. of Sci. and Tech., Korea)  
Two dimensional analytic polyhedra with non-compact automorphism group

### November 2 (Friday)

- 9:00 – 10:00 **Joseph J. Kohn** (Princeton Univ., USA)  
Ideals of multipliers
- 10:30 – 11:30 **Eric Bedford** (Indiana Univ., USA)  
Invariant measures for bimeromorphic mappings of complex surfaces
- 13:30 – 14:00 **Bernard Shiffman** (Johns Hopkins Univ., USA)  
Random polynomials with a given Newton polytope: A probabilistic form of Kouchnerenko's theorem
- 14:10 – 14:40 **Steven Lu** (Osaka Univ., Japan)  
Infinitesimal Kobayashi metrics on algebraic manifold
- 14:50 – 15:20 **Oswald Riemenschneider** (Univ. Hamburg, Germany)  
The monodromy covering of the versal deformation of cyclic quotient surface singularities
- 15:50 – 16:20 **Hajime Tsuji** (Tokyo Inst. of Tech., Japan)  
Inductive structure of flips
- 16:30 – 17:00 **Shigeharu Takayama** (Kyushu Univ., Japan)  
Seshadri constants and a criterion for bigness of pseudo-effective line bundles
- 17:10 – 17:40 **Su-Jen Kan** (Academia Sinica, Taiwan)  
Complexifications and the rigidity

**November 3 (Saturday)**

9:00 – 10:00 **T. Kawai - T. Aoki - Y. Takei** (Kyoto Univ. RIMS, Japan)

Exact steepest descent method — a newly found missing link between microlocal analysis and exact WKB analysis

10:30 – 11:30 **Yum-Tong Siu** (Harvard Univ., USA)

Some problems and results in the interface of complex Neumann estimates and complex geometry

13:30 – 14:00 **Shoshichi Kobayashi** (Univ. of California, USA)

Almost complex manifolds and hyperbolicity

14:10 – 14:40 **Mikael Passare** (Stockholm Univ., Sweden)

Amoebas, Monge-Ampère measure, and triangulations of the Newton polytope

14:50 – 15:20 **Nessim Sibony** (Univ. Paris-Sud, France)

$\bar{\partial}$ -equation on harmonic and positive currents

15:50 – 16:20 **Kazuko Matsumoto** (Osaka Women's Univ., Japan)

On the convexity of complements of analytic subsets

16:30 – 17:00 **Yoshihiro Aihara** (Numazu Col. of Tech., Japan)

Uniqueness problems for meromorphic mappings under condition on the preimages of divisors

17:10 – 17:40 **Manabu Shirosaki** (Osaka Prefecture Univ., Japan)

Hypersurfaces and uniqueness of holomorphic mappings

**November 4 (Sunday)**

9:00 – 10:00 **Yoichi Miyaoka** (Univ. of Tokyo, Japan)

Rational curves and complex symplectic geometry

10:30 – 11:30 **Georg Schumacher** (Philipps-Univ. Marburg, Germany)

Quasi-projectivity of moduli spaces

14:10 – 14:40 **Ken-Ichi Yoshikawa** (Univ. of Tokyo, Japan)

$K3$  surfaces with involution, equivariant analytic torsion, and automorphic forms on the moduli space

14:50 – 15:20 **Stephen S.-T. Yau** (Univ. of Illinois at Chicago, USA)

Numerical characterization of affine variety to be a cone over non-singular projective variety

15:50 – 16:20 **Andrei Iordan** (Univ. Paris VI, France)

Cohomology of forms with Sobolev coefficients on pseudoconvex domains in the projective space

16:30 – 17:00 **Kengo Hirachi** (Univ. of Tokyo, Japan)

Explicit relation between the asymptotic expansions of the Bergman and the Szegő kernels

17:10 – 17:40 **Takahiro Nakata** (Nagoya Univ., Japan)

Some convexity properties of covering spaces of pseudoconvex manifolds

**November 5 (Monday)**

9:00 – 10:00 **László Lempert** (Purdue Univ., USA)

Analytic cohomology in infinite dimensional spaces

10:30 – 11:30 **Takeo Ohsawa** (Nagoya Univ., Japan)

$L^2$  division theorems on manifolds

**Programm at Nara ( November 6-8):**

**Talks**

**November 7 (Wednesday) – in Japanese –**

10:00 – 11:00 **Toshio Nishino** (Kyushu Univ., Japan)

My teacher Oka as a mathematician

— background of his creative thinking

11:15 – 12:15 **Hironori Shiga** (Chiba Univ., Japan)

Honka-dori as a methodology of mathematics

— Luminescence of what I heard from late professor Oka

14:00 – 15:00 **Tohru Morimoto** (Nara Women's Univ., Japan)

Streams and Encounters in Mathematics

— Kiyoshi Oka and a theorem of Clifford

**November 8 (Thursrday) – in English –**

10:00 – 11:00 **Pierre Dolbeault** (Univ. Paris VI, France)

On the Influence of Oka's Work

11:15 – 12:15 **John Wermer** (Brown Univ., USA)

Boundaries of the Analytic Varieties

**Exhibition of Oka Collection**

November 1 – 8 (10:00 - 16:00)

Notes for the establishing his papers, especially Memoire VIII.

Letters to or from Prof. T. Takagi, H. Behnke, H. Cartan, A. Weil, R. Thom.

Lecture notes for the lectures in Department of Nara Women's University.

His favorite books through his life.

His (mathematical) diaries.

His books and essays written in Japanese, some of which attracted broad interest of the public, and were read by people from the young to the senior.

His calligraphies and photoes.

## Talk between Kiyoshi Oka and Yasuo Akizuki

— 45 minutes NHK film, 1965 —

November 7 - 8 (10:00 -15:00)

### List of Participants

The number of registered participants was one hundred forty one, and among them there were thirty five participants from oversea.

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|--|---|
| Abe, Makoto (Kumamoto Univ.)             | Fujita, Takao (Tokyo Inst. of Tech.)          |
| Adachi, Yukinobu                         | Fukuda, Shigetaka (Gifu Shotoku Gakuen Univ.) |
| Adachi, Kenzo (Nagasaki Univ.)           | Fukushima, Yukio (Fukuoka Univ.)              |
| Aihara, Yoshihiro (Numazu Col. of Tech.) | Furushima, Mikio (Kumamoto Univ.)             |
| Akahori, Takao (Himeji Inst. of Tech.)   | Garfield, Peter (Univ. of Washington)         |
| Aoki, Takashi (Kinki Univ.)              | Grauert, Hans (Univ. Goettingen)              |
| Azukawa, Kazuo (Toyama Univ.)            | Harada, Tomoyo (Nara Women's Univ.)           |
| Bedford, Eric (Indiana Univ.)            | Hasegawa, Keizo (Niigata Univ.)               |
| Bhupal, Mohan (Hokkaido Univ.)           | Hayashimoto, Atsushi (Nagano Col. of Tech.)   |
| Bland, John (Univ. of Toronto)           | Hirachi, Kengo (Univ. of Tokyo)               |
| Cerne, Miran (Univ. of Ljubljana)        | Hirai, Etsuko (Kyoto Sangyo Univ.)            |
| Cho, Koji (Kyushu Univ.)                 | Hiraoka, Yoshiko (Toyo Univ.)                 |
| Choi, Seon A. (Kyushu Univ.)             | Hisamatsu, Makoto (Tokyo Inst. of Tech.)      |
| Dini, Gilberto (Univ. of Florence)       | Honda, Tatsuhiro (Ariake Col. of Tech.)       |
| Dolbeault, Pierre (Univ. of Paris VI)    | Hyuga, Takayuki (Nagoya Univ.)                |
| El Goul, Jawher (Univ. Paul Sabatier)    | Iordan, Andrei (Univ. of Paris VI)            |
| Enoki, Ichiro (Osaka Univ.)              | Ishii, Yutaka (Kyushu Univ.)                  |
| Fornaess, John E. (Univ. of Michigan)    | Izumi, Shuzo (Kinki Univ.)                    |
| Forstneric, Franc (Univ. of Ljubljana)   | Jimbo, Toshiya (Nara Univ. of Education)      |
| Fujiki, Akira (Osaka Univ.)              | Jin, Teisuke (Univ. of Tokyo)                 |
| Fujimoto, Hirotaka (Kanazawa Univ.)      |   |
| Fujita, Keiko (Saga Univ.)               |   |
| Fujita, Osamu (Nara Women's Univ.)       |   |

- Kan, Su-Jen (Academia Sinica) Univ.)  
 Kaneko, Akira (Ochanomizu Univ.)  
 Kanemaru, Tadayoshi (Kumamoto Univ.)  
 Kashiwara, Hiroko (Osaka Prefecture Univ.)  
 Kasuga, Kazuhiro (Niigata Univ.)  
 Kato, Kazuko (Ryukoku Univ.)  
 Kato, Mitsuo (Univ. of the Ryukyus)  
 Katsumi, Masaaki (Ishikawa Col. of Tech.)  
 Kawai, Takahiro (R.I.M.S., Kyoto Univ.)  
 Kazama, Hideaki (Kyushu Univ.)  
 Kim, Kang-Tae (Pohang Univ. of Sci. and Tech.)  
 Kim, Kyung N. (Kyushu Univ.)  
 Kizuka, Takashi (Kyushu Univ.)  
 Kobayashi, Shoshichi (Univ. of California)  
 Kobayashi, Masashi (Univ. of Tokyo)  
 Kodama, Akio (Kanazawa Univ.)  
 Kodama, Mitsuru (Kagoshima Univ.)  
 Kohn, Joseph J. (Princeton Univ.)  
 Koizumi, Eisuke (Tohoku Univ.)  
 Komatsu, Gen (Osaka Univ.)  
 Kota, Osamu (Rikkyo Univ.)  
 Kuranishi, Masatake (Columbia Univ. and Tokyo Univ.)  
 Lee, John M. (Univ. of Washington)  
 Leiterer, Juergen (Humboldt-Univ. zu Berlin)  
 Lempert, Laszlo (Purdue Univ.)  
 Lu, Steven (Osaka Univ.)  
 Mabuchi, Toshiki (Osaka Univ.)  
 Maeda, Hidetoshi (Waseda Univ.)  
 Maegawa, Kazutoshi (Kyoto Univ.)  
 Matsugu, Yasuo (Shinshu Univ.)  
 Matsumoto, Kazuko (Osaka Women's Univ.)  
 Matsushita, Toshio (Ishikawa Col. of Tech.)  
 Matsushita, Daisuke (Hokkaido Univ.)  
 Miyajima, Kimio (Kagoshima Univ.)  
 Miyaoka, Yoichi (Univ. of Tokyo)  
 Miyatake, Motoko  
 Miyazawa, Kazuhisa (Nagoya Univ.)  
 Mori, Seiki (Yamagata Univ.)  
 Murakami, Masaaki (Kyoto Univ.)  
 Nakagawa, Yasuhiro (Tohoku Univ.)  
 Nakamura, Yayoi (Ochanomizu Univ.)  
 Nakata, Takahiro (Nagoya Univ.)  
 Namba, Makoto (Osaka Univ.)  
 Nishihara, Masaru (Fukuoka Inst. of Tech.)  
 Nishimura, Yasuichiro (Osaka Medical College)  
 Nishino, Toshio (Kyushu Univ.)  
 Nivoche, Stephanie (Univ. Toulouse)  
 Noguchi, Junjiro (Univ. of Tokyo)  
 Nono, Kiyoharu (Fukuoka Univ. of Education)  
 Obitsu, Kunio (Kagoshima Univ.)  
 Ohsawa, Takeo (Nagoya Univ.)  
 Ohta, Tomoaki (Kyushu Kyoritsu Univ.)  
 Oh'uchi, Shigeki (Univ. of Tokyo)  
 Okai, Takayuki  
 Okuyama, Yusuke (Shizuoka Univ.)  
 Passare, Mikael (Stockholm Univ.)  
 Range, R. Michael (State Univ. of

- New York)
- Riemenschneider, Oswald (Univ. Hamburg)
- Saito, Kyoji (R.I.M.S., Kyoto Univ.)
- Sakai, Akira (Univ. of Osaka Prefecture)
- Sakai, Makoto (Tokyo Metropolitan Univ.)
- Schumacher, Georg (Univ. Marburg)
- Shiffman, Bernard (Johns Hopkins Univ.)
- Shiga, Hironori (Chiba Univ.)
- Shiga, Kiyoshi (Gifu Univ.)
- Shimizu, Satoru (Tohoku Univ.)
- Shimomura, Katsunori (Ibaraki Univ.)
- Shinohara, Tomoko (Kanazawa Univ.)
- Shirosaki, Manabu (Osaka Prefecture Univ.)
- Shishikura, Mitsuhiro (Kyoto Univ.)
- Sibony, Nessim (Univ. Paris-Sud)
- Siu, Yum-Tong (Harvard Univ.)
- Sumi, Hiroki (Tokyo Inst. of Tech.)
- Suzuki, Masakazu (Kyushu Univ.)
- Tajima, Shinichi (Niigata Univ.)
- Takahashi, Sechiko (Nara Women's Univ.)
- Takamura, Masakazu (Kanazawa Univ.)
- Takayama, Shigeharu (Kyushu Univ.)
- Takei, Yoshitsugu (R.I.M.S., Kyoto Univ.)
- Takeuchi, Akira (Kyoto Univ.)
- Takeuchi, Shigeru (Gifu Univ.)
- Terada, Toshiaki (Shiga Univ. of Medical Sci.)
- Toda, Nobushige (Nagoya Inst. of Tech.)
- Tomaru, Tadashi (Gunma Univ.)
- Tsuboi, Shoji (Kagoshima Univ.)
- Tsuji, Hajime (Tokyo Inst. of Tech.)
- Uchimura, Keisuke (Tokai Univ.)
- Ueda, Tetsuo (Kyoto Univ.)
- Umeno, Takashi (Kyushu Sangyo Univ.)
- Watanabe, Kiyoshi (Kobe Univ.)
- Wermer, John (Brown Univ.)
- Winkelmann, Joerg (Korean Inst. for Advanced Studies)
- Yamagishi, Yoshikazu (Ryukoku Univ.)
- Yamaguchi, Hiroshi (Nara Women's Univ.)
- Yamanoi, Katsutoshi (R.I.M.S., Kyoto Univ.)
- Yau, Stephen S.-T. (Univ. of Illinois)
- Yoshida, Mamoru (Fukuoka Univ.)
- Yoshikawa, Ken-Ichi (Univ. of Tokyo)