Notices from the ISMS

July 2006

CONTENTS

For the Welfare of the Humankind
Promoting Mathematical Sciences

APOLOGY OF EUCLID

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April 21, 2005

ABSTRACT. This is a short apology of the style of the *Elements* by Euclid and Bourbaki.

A somewhat derogatory term "bourbakism" proliferates in many public discussions about the teaching of mathematics. We hear many funny anecdotes about commutativity as a method of calculation as well as separate addition of nominators and denominators. Professional mathematicians and teachers divide into the hostile groups that discuss with alienation and indignation of the medieval scholastics the "problem of the naturalness of zero" as well as the priority rights between the concepts "greater than," "greater than or equal to," and "strictly greater than." All these stories and philippics are nice and true to some extent but rest upon a clear-cut misunderstanding.

It stands to reason to recall that there was no teacher whose name was Bourbaki. It is also reasonable to bear in mind that the treatise of Bourbaki is written as imitation of *Euclid's Elements*. The style of Bourbaki's *Elements of Mathematics* is exactly the style of Euclid.

Any serious criticism of the books by Bourbaki bases on pretensions to their content rather than style. Bourbaki's treatise is evidently incomplete. Many important mathematical theories are absent or covered inadequately. A few volumes present the dead ends of exuberant theories. All these shortcomings are connected with the major capital distinction between the books by Euclid and Bourbaki. In his *Elements* Euclid set forth the theory that was almost complete in his times, the so-called "Euclidean" plane and space geometry. Most of this section of science was made clear once and forever in the epoch of Euclid.

The Bourbaki project was implemented in the period of very rapid progress in mathematics. Many books of the treatise became obsolete at the exact moment of publication. In particular, functional analysis had been developing contrary to what one might imagine reading the book *Topological Vector Spaces*. But to a failure was doomed the heroic and ambitions plan of Bourbaki to present the elements of the whole mathematics of the twentieth century in a single treatise along the methodological lines of Euclid. Mathematics renews and enriches itself with outstanding brilliant achievements much faster than the books of Bourbaki's treatise were compiled. There is no wonder that the mathematical heroes who create the twentieth century mathematics have distinctly and immediately scented the shortcomings of Bourbaki. The treatise encountered severe criticism and even condemnation since it omits many important topics. As usual, this serious criticism convened all sorts of educationists, would-be specialists in "propaedeutics" and

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"methodology" who are hardly aware of what is going on in the real mathematics. Everyone knows that to criticize a book for incompleteness is a weak argument since it is strange to judge an article for what is absent in this article. Grudges against the content of the treatise transform by necessity to the criticism of its form. The terseness, conciseness, and lapidary of the style of exposition fall victim to criticism and even ostracism by the adversaries of the malicious "bourbakism" in education.

Salomon Bochner, one of the famous mathematicians of the past, observed with a witty smile:

> Also, if examined "objectively," Euclid's work ought to have been any educationist's nightmare. The work presumes to begin from a beginning; that is, it presupposes a certain level of readiness, but makes no other prerequisites. Yet it never offers any "motivations," it has no illuminating "asides," it does not attempt to make anything "intuitive," and it avoids "applications" to a fault. It is so "humorless" in its mathematical purism that, although it is a book about "Elements," it nevertheless does not unbend long enough in its singlemindedness to make the remark, however incidentally, that if a rectangle has a base of 3 inches and a height of 4 inches then it has an area of 12 square inches. Euclid's work never mentions the name of a person; it never makes a statement about, or even an (intended) allusion to, genetic developments of mathematics; it makes no cross references, except once, the exception being in proposition 2 of Book 13, where the text refers to, and repeats the content of, the "first theorem of the tenth book," which, as it happens, is Euclid's "substitute" for the later axiom of Archimedes. Euclid has a fixed pattern for the enunciation of a proposition, and, through the whole length of 13 books, he is never tempted to deviate from it. In short, it is almost impossible to refute an assertion that the Elements is the work of an unsufferable pedant and martinet... Euclid's work became one of the all-time best sellers. According to "objective" Pestalozzi criteria, it should have been spurned by students and "progressive" teachers in every generation. But it nevertheless survived intact all the turmoils, ravages, and illiteracies of the dissolving Roman Empire, of the early Dark Ages, of the Crusades, and of the plagues and famines of the later Middle Ages. And, since printing began, Euclid has been printed in as many editions, and in as many languages, as perhaps no other book outside the Bible.[1]

Euclid's book is a totally appalling, terse and formal presentation of axioms, definitions, lemmas and theorems without any motivation and digression, lacking any illuminating examples from physics, economics, social or spiritual life. However, it is the book that lives about two and a half millennia and shows no indication of dying. In contract, the textbooks fail to survive the gerontological tests that define the area of a figure by sowing it with some grain or cutting it off a sheet of paper.

We must avoid mixing together the full-time and extramural forms of training, the transfer and saving of knowledge. The Babylonian texts on mathematics are in fact problem-books with solutions. This style of teaching is still alive. However, no problem-book of any sort can compare with *Euclid's Elements* in its long-term impact on mathematics and culture as a whole. Any student's notes of a mathematical course still remind us of *Euclid's Elements* and its successor in style, Bourbaki's *Elements of Mathematics*.

In common parlance, *bourbakism* stands for "formalistic structural mathematics," whatever the bizarre term means. In fact, this vogue word rarely implies something more than a simple reference to the century-old tradition of shortening and saving mathematical theories in axiomatic form. This marvelous and noble tradition stems from the writings of Euclid. Elimination of extravagancy and pursuit of consistency, clarity, terseness, and rationality in exposition stimulate, organize,

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[1]Bochner S. *The Role of Mathematics in the Rise of Science.* Princeton University Press, 1981, pp. 35–36

and discipline mind and thought, revealing the intrinsic beauty and harmony of mathematics. It is exactly the impersonal style of *Euclid's Elements*, lacking any temporal inklings, that makes them especially valuable and allows anybody to understand what they tell us when centuries have elapsed.

The "verbal" problems, practical motivations and emphasis on a person's creativity as well as the subjective coloring of exposition and present-day allusions are absolutely obligatory gadgets in the tool-kit for training. However, the particular products of these immortal teaching tools are rather volatile, momentary, and fragile; they often die at the spur of the moment of their enunciation.

Science must preserve old knowledge as well as meet the challenges of nowadays by solving the new and pending problems. Therefore, teaching has the twofold task of preserving and transferring knowledge, "filling the mind" in combination with "igniting a fire," i.e., the initiation and stimulation of creative search into new knowledge. There is no reason to oppose the transfer and preservation of knowledge and the training of creativity and practical skills in raising and solving the problems of today. Preservation of mathematical knowledge in the impersonal and dry style of textbooks never excludes the possibility of creative search of the teacher. On the contrary, the style of Euclid presupposes perpetual creativity, calling the teacher for finding and using subtle personal adjustments, subjective keys and even mysteries for igniting students' interest in mathematics, the understanding of its place and role in science, industry, and other areas of public life as well as for training skills of application of mathematics in practical problems.

The everlasting duty of the teacher is to destroy the obstacles to the understanding of mathematics, reveal the liberating essence of its free thinking, and explain that MATHEMATICS IS THE MOST HUMAN OF ALL HUMAN SCIENCES. There is no math without a man or a woman. The physical world still prevails but math vanishes without men and women. We people do math. We do it, thinking about everyone and we do it for everybody. The purpose and essence of mathematics reside in the freedom it brings to us.

Mathematics welcomes everyone, combining free access, democracy, and openness with the indisputable prohibition of any prejudice, subjectiveness, and arbitrariness of judgements.

One of the most personalized sciences which requires everybody's personal effort for solving a however simple arithmetical problem, mathematics has learned to make the complex the simple and comprehensible to each of us.

The most human among sciences, mathematics has elaborated its beautiful "unhuman" form of the objective transfer of knowledge in writing—the classic style of the Hellenistic "Elements."

There are no King's ways to mathematics; the road to mathematics was charted by Euclid. The style of Euclid not only lives in the books by Bourbaki but also proliferates in hundreds of thousands of students' notes throughout the world. This style is an achievement and article of pride of our ancient science.

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IMPLEMENTATION OF BYLAWS 2006

In accordance with the Bylaws 2006 approved at the Business Meeting on April 18, 2006, the procedures for establishing the new committees and for the new officers' elections are carrying out. The time schedule for the elections was announced in Kaiho and in Notices from the ISMS (May 2006), however, the mailing of them were considerably delayed. This happened because many ISMS members were to change their affiliations and we had to ask their new mailing addresses. In the result, we had to change the time schedule for the elections as follows.

CONFIDENCE VOTE FOR PRESIDENT ELECT

The deadline of the confidence vote shall be changed from June 15, 2006 to **August 10, 2006**. The ISMS members are requested to vote by way of "Voting for President Elect" of the top page of our Web site (http://www.jams.or.jp) or by e-mail to pgp7j@jams.jp.
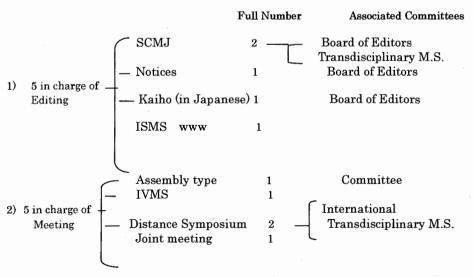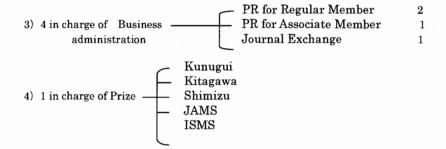
2006 OFFICERS ELECTION

As set forth in Article I of Bylaws 2006, the number of secretaries is increased. We hereby accept candidates for the following officers.
(1) Four officers in charge of publishing (except Tadashige Ishihara)
(2) Four officers in charge of meetings (except Atsushi Yagi)
(3) Three officers in charge of membership and accounting (except Akira Tsutsumi)
(4) One officer in charge of Prizes
The candidacy should be followed by the recommendation of at least two ISMS members and be made by **July 20, 2006**. The names of the candidates shall be announced on our Web site on **July 22, 2006** and the election shall begin on the same day with the deadline of **August 10, 2006**. The term of office for the fifteen secretaries ends: on December 31, 2007 for the seven secretaries including the present secretaries, and on June 30, 2008 for the rest eight secretaries.

Work Responsibility Schedule for the Fifteen Secretaries

		Full Number	Associated Committees
1) 5 in charge of Editing	SCMJ	2	Board of Editors / Transdisciplinary M.S.
	Notices	1	Board of Editors
	Kaiho (in Japanese)	1	Board of Editors
	ISMS www	1	
2) 5 in charge of Meeting	Assembly type	1	Committee
	IVMS	1	
	Distance Symposium	2	International Transdisciplinary M.S.
	Joint meeting	1	

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                              ┌─  PR for Regular Member      2
3)  4 in charge of  Business ─┼─  PR for Associate Member    1
         administration       └─  Journal Exchange           1

                      ┌─  Kunugui
                      ├─  Kitagawa
4)  1 in charge of Prize ─┼─  Shimizu
                      ├─  JAMS
                      └─  ISMS
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NEW COMMITTEES AND THEIR MEMBERS

[1] Prize Nominating Committee
(1) Kunugui Prize: A.V. Alhangel'skii (Ohio Univ.), J.B. Conway (George Washington Univ.), N. Brunner (Univ. Bodenkultur)
(2) Kitagawa Prize: A. Salomaa (Finland), P.K. Sen (Univ. North Carolina),
    L.M. Ricciardi (Univ. Napoli Federico II), K. Szajowski (Wroclaw Univ. of Tech.)

The following members for Shimizu Prize and JAMS Prize continue to be the members of the Board of Prize Nominators.
    Kiyoshi Iseki, Shizu Nakanishi, Minoru Sakaguchi, Masako Sato, Hisao Nagao

[2] Editorial Board of Notices
L.M. Sanchez Ruiz (Spain), A. Brams (U.S.A.), K. Denecke (Germany), A. SenGupta (India), I.A. Rus (Romania), A.T. Lau (Canada), W.W. Comfort (U.S.A.), A. Favini (Italy), D. Pzeworska-Rolewicz (Poland), K. Szajowski (Poland), T. Nishiura (U.S.A) S.S. Kutateladze (Russia), J.D. Monk (U.S.A.), M. Vlach (Czech/Japan)

[3] Editorial Board of Kaiho (Newsletter in Japanese)
Mariko Yasugi (Kyoto Sangyo Univ.), Yoshiki Kinoshita (AIST), Yasunao Hattori (Shimane Univ.), Kozo Yamada (Shizuoka Univ.), Masaru Nagisa (Chiba Univ.), Kiyoshi Iseki, Wuyi Yue (Konan Univ.), Masanobu Taniguchi (Waseda Univ.), Hisao Nagao, Tadashige Ishihara, Wataru Takahashi (Tokyo Inst. Tech.), Yoshinobu Teraoka (Osaka Pref. Univ.), Yoshikazu Yasui (Osaka Kyoiku Univ.), Shizu Nakanishi, Masatoshi Fujii (Osaka Kyoiku Univ.), Jun Ichi Fujii (Osaka Kyoiku Univ.), Katsuhiro Miyamoto (Kansai Univ.), Toshio Nishida

[4] International Joint Meeting Committee
Atsushi Yagi, Masaru Nagisa, Wuyi Yue, Shizu Nakanishi, Juniti Nagata, Kiyoshi Iseki, V.V. Mazalov, K. Szajowski, I.A. Rus, Hisao Nagao, Shinji Kuriki, Tadashige Ishihara, Hiroaki Ishii, Masanobu Taniguchi, M. Vlach, Shintaro Mori

[5] Board of Business Administration (Promotion for Institutional Members and Individual Members, Journal Exchanges)
Hisao Nagao, Toshio Nishida, Hidenori Tanaka, Koyu Uematsu, S.S. Kutateladze, A. SenGupta, Wuyi Yue, Hiroaki Ishii

[6] Transdisciplinary Mathematical Sciences Committee
Seizaburo Arita, Masamori Ihara, Toshihide Ibaraki, Hiroaki Ishii, Tadashige Ishihara, Noburo Inagaki, Yoshifumi Usami, Wuyi Yue, Yoshiki Kinoshita, Hiroshi Kimura, Masako Sato, Wataru Takahashi, Masanobu Taniguchi, Yoshio Tabata, Yoshinobu Teraoka, Masaru Nagisa, Toshio Nishida, Katsuhiro Miyamoto, Sang-Su Han, Yoshisada Murotsu, Atsushi Yagi, Hiroaki Yoshida, Kanji Yoneyama, Shin-ichi Nakagiri, Yasunari Higuchi, Hiromitsu Takahashi, Akira Mizohata, Hiroyoshi Naito, Nobutaka Monji, Shojiro Tagawa, Takashi Yagi, Masahiro Okuda

[7] Assembly Type IVMS Committee
Hiroaki Ishii, Masatoshi Fujii, Shinji Kuriki

[8] SCMJ Managing Editors

ELECTION OF COUNCIL MEMBERS

As set forth in Article IV of Bylaws 2006, ten(10) foreign members and eight (8)domestic members except eighteen(18) officers should be included in the Council. Therefore, four(4) foreign members and four(4) domestic members should be newly nominated. After the 2006 Officers Election, which will be conducted from July 22 through August 10, 2006, the Board of Officers will nominate the new members and the confidence vote by the membership conducted.

DISTANCE SYMPOSIUM

For distance symposium, we are using the system that SOBA Project Inc. provides free of charge. This system called SOBA City enables about twenty sites to be connected at a time. We are expecting to use this system for distance symposium or meetings. For more details, please access to: http://www.soba-project.com/ The pages are made in Japanese only, but it is said that English version will be completed in August of this year.

After having made trial tests several times between two or three sites, we are going to have a test of a research meeting on August 5 (Sat.), 2006. Participation of your research group is welcome. For participation, the data such as your research group name and the name of the representative should be sent to: pgp6j@jams.jp by July 27, 2006.

ANNUAL MEETING, MEETING OF RESEARCH GROUPS

2006 ISMS Annual Meeting (For details, see "Annual Meeting" of our Web site.)

ALGI 17 (The 17th Algebra, Logic, Geometry and Informatics)
This is a series of seminars on applications of algebra, logic and geometry to informatics, and applications of informatics to these areas of mathematics. ALGI is organized especially for people in informal semantics of programming languages, as there were no such in this field, while there are already several series of seminars in Japan for people in the field between mathematical logic and theoretical computer science.

Date: October 12 – 13, 2006
Place: Nara Women's University
Contact Person: T. Takai (t-takai@aist.go.jp)

ISMS CO-SPONSORED MEETINGS

(1)　　The 3rd Symposium on Scientific Technology for Verification and Semantics

Date: October 30 - November 1, 2006
Place: Senri Life Science Center Building, Osaka, Japan (Near Senri Chuo Station)
Sponsored by: Japan Science and Technology Agency, and
　　　　　　　Reseach center for Verification and Semantics, AIST

(2)　　　　　　The 7th International conference on Optimization:
　　　　　　Techniques and Application (ICOTA7)

The International Conference on Optimization: Techniques and Applications (ICOTA) is an official conference series of POP (The Pacific Optimization Research Activity Group).　The goal of ICOTA is to provide an international forum for scientists, researchers, software developers, and practitioners to exchange ideas and approaches, to present research findings and state-of-the-art solutions, to share experiences on potentials and limits, and to open new avenues of research and developments, on all issues and topics related to optimization and its applications.

Date: December 12 - 15, 2007
Place: International conference Center, Kobe, Japan

ICOTA7's webpage is: http://www.iict.konan-u.ac.jp/ICOTA7/

INTERNATIONAL ADVISORS

Board of Editors
(a) Name
(b) Postal Address
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(d) Field of Interests or 2000 AMS subject classification
(e) Electronic files only: Editors with this wording receive only electronic files. Authors should not send hard copies to their postal addresses.

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(d) 46: H05, H15, H20, J05, K05, K10, L80(K-Theory of topological algebras), M05 (Tensor products of topological algebras), N50 (Applications of topological algebras in quantum physics), 58A40, 53C80

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(c) As in (4)
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(d) General topology, Order, lattices, ordered algebraic structures

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18

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159, 179, 189. For Japanese Author(s), write 151~158, 170, 180 in Japanese.

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ABSTRACT

Call for Academic and Institutional Members

Discounted subscription price: When organizations become the Academic and Institutioanl Members of the ISMS, they can subscribe our journal Scientiae Mathematicae Japonicae at the yearly price of US$300 (printed version only) or at the yearly price of US$420 (printed version plus online version).

Invitation of two associate members: We would like to invite two persons from the organizations to the associate members with no membership fees. The two persons will enjoy almost the same privileges as the individual members do including the discount of the page charge. Although the associate members cannot have their own ID Name and Password to read the online version of SCMJ, they can read the online version of SCMJ at their organization.

To apply for the Academic and Institutional Member of ISMS, please use the following application form.

Application for Academic and Institutional Member of ISMS

Subscription of SCMJ Check one of the two.	☐Print (US$300)	☐Print + Online (US$420)
University (Institution)		
Department		
Postal Address where SCMJ should be sent		
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Payment Check one of the two.	☐Bank transfer	☐Credit Card (Visa, Master)
Name of Associate Membership	1.	
	2.	

Call for Members
ISMS Membership Dues from 2006

A new category "life member" has been established and can be applied for from 2005. An eligible member may become a life member by making a one-time payment of dues. A member who has been an ISMS member for ten years or more is eligible for a life member. The amounts of dues are : ¥70,000 for the domestic members, US$ 600 (€ 480)for the foreign members, and US$ 500 (€400)for the members in developing countries.

We have reduced the ISMS memership dues since 2001 and copies of the printed journal have not been distributed to the members, free of charge. Instead, we give User Name and Password to each member so that he/she can view or print out the full text of the papers published in SCMJ except papers in the international plaza from our Web site (http://www.jams.or.jp).

The Membership Dues for each category is as follows. Applications for the 3-year members can be made only in 2005 and in every three years.

Membership Dues for 2006

Membership	JAPAN	S-JAPAN	Foreign	S-Foreign	Developing
1-year	A1 ¥7,000	SA1 ¥3,500	F1 US$50 €40	SF1 US$30 €24	D1 US$30 €24
3-year	A3 ¥18,000	SA3 ¥9,000	F3 US$120 €96	SF3 US$60 €48	D3 US$70 €56
Life Member	Life ¥70,000	Life ¥70,000	FL US$600 €480	FL US$600 €480	DL US$500 €400

Category D is for those who reside in the countries of Eastern Europe, CIS or developing countries. Category S is for students and for the aged (older than 70). The figure 1 and 3 means a year and 3 years respectively.
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Payment Instructions
Payment can be made through a post office or a bank, or by credit card. Members may choose the most convenient way of remittance. Please note that we do not accept payment by bank drafts (checks). For more information, please refer to an invoice.

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(1) Remittance through a post office to our giro account No. 00930-1-11872 or send International Postal Money Order to our postal address (2) Remittance through a bank to our account No. 94103518 at Shinsaibashi Branch of CITIBANK (3) Payment by credit cards (AMEX, VISA, MASTER or NICOS), or (4) Payment by UNESCO Coupons.

Methods of Domestic Payment:
Make remittance
(1) to our Post Office Transfer Account - 00930-3-73982 or
(2) to our account No.1565679 at SUMITOMO BANK, Sakai, Osaka, Japan.
All the correspondences concerning subscriptions, back numbers, individual and institutional memberships, should be addressed to the Publications Department, International Society for Mathematical Sciences.

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8. Panel (Please choose one out of the following 12panels and write the panel number. You could choose one or more.)

(e-1)Mathematical Logic, Set Theory, Lattice Theory, Ordered Systems.
(e-2)Algebra, Algebraic Geometry, Number Theory, Combinatorics, Cryptology.
(e-3) Topology, Geometry, Imaging.
(e-4) Real Analysis, Functional Analysis, Complex Functions.
(e-5) Differenation Equations, Integral Equations, Functional Equations.
(e-6) Fluid Dynamics, Rheology, Imaging and other Applied Analysis, Control Theory, Numerical Analysis, Simulation.
(e-7) Probability, Statistics, Data Mining, Decision theory. Quality Control.
(e-8) Game, Finance, Operations Research, Mathematical Economics. Ecology
(e-9) Informatics, Computer Sciences.
(e-10) Biomathematics, Neuroinformatics, Genome Sciences, Nanoscience.
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(e-12) Over several fields.(Ex. Fixed Point Theory, Semi-group)

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Join ISMS !

ISMS Publications: We published **Mathematica Japonica** (M.J.), which enjoyed an international reputation, for about sixty years in print and its offshoot **Scientiae Mathematicae (SCM)** both online and in print. In January 2001, the two publications were unified and changed to **Scientiae Mathematicae Japonicae (SCMJ)**, which is the "21st Century New Unified Series of Mathematica Japonica and Scientiae Mathematicae" and published both online and in print. Ahead of this, the online version of SCMJ was first published in September 2000. The number of the annual total pages of the print version has been from 700 to 1,200 pages in six issues since January 1978. The whole number of SCMJ exceeds 230, which is the largest amount in the publications of mathematical sciences in Japan. The features of SCMJ are:

1) About 40 eminent professors and researchers of not only Japan but also 15 foreign countries join the Editorial Board. The submitted papers are received directly by the editors and are refereed quickly. The accepted papers are published online with no lead time after compiling or proofreading. SCMJ is reviewed by Mathematical Review and Zentralblatt from cover to cover.

2) SCMJ is distributed to many libraries of the world.The papers in SCMJ are introduced to the relevant research groups for the positive exchanges between researchers.

3) The original papers and surveys of distinguished mathematical scientist appear in every issue of SCMJ. The section called "International Plaza" of SCMJ has very interesting expository papers written by the eminent mathematical scientist of the world. Presentations of recent research frontier including award lectures by the winners of the ISMS Prize or Shimizu Prize are made.

4) **ISMS Annual Meeting:** Many researchers of ISMS members and non-members gather and take time to make presentations and discussions in their research groups every year.

5) The ISMS holds inter-regional videoconferences called **International Videoconference of Mathematical Sciences (IVMS)** via internet. There is no need for the participants to travel abroad.

Privileges to ISMS Members: (1) Free access (including printing out) to the online version of SCMJ, (2)Discounted price for the printed version of SCMJ (See Table 1), (3) Discounted page charges (See Table 2).

Table 1: Subscription Price

	Individual 1-year mem.	Individual 3-year mem.	Author non-member	Institutional member	List Price
Print / year	¥6,000 US$60, €48	¥5,500 * US$55, €44	¥6,000 US$60, €48	¥33,000 US$300, €240	¥45,000 US$400, €320
Online/year	Free	Free	¥6,000 US$60, €48	—	—
Online+Print / year	¥6,000 US$60, €48	¥5,500 * US$55, €44	¥9.000 US$90, €72	¥45,000 US$420, €336	¥57,000 US$520, €416

Postal charge is US$2 (€1.6) per issue. *In case three-year members make the payment at a time in advance, the price for 3 years is ¥15,000 (US$150, €120).

Table 2: Page Charge per printed page

	Individual/Associate Member	Non Member
Paper : P	¥3,850 (US$35, €28)	¥4,450 (US$43, €35)
TeX: T	¥2,200 (US$18, €14)	¥2,800 (US$26, €21)
ISMS style: Js	¥1,100 (US$8, €7)	¥1,700 (US$16, €14)

The above page charges include 20 offprints.

Table 3: Membership Dues for this year

Categories	Domestic	Overseas	Developing countries
1-year member (1A)	A1: ¥7,000	F1: US$50 , €40	D1: US$30, €24
3-year member (3A)	A3: ¥18,000	F3: US$120, €96	D3: US$70, €56
1-year students or aged (1S)	SA1: ¥3,500	SF1: US$30, €24	SD1: US$20, €16
3-year students or aged (3S)	SA3: ¥9,000	SF3: US$70, €56	SD3: US$50, €40
Life member* (L)	AL: ¥70,000	FL: US$600, €480	DL: US$500, €400

*The members who have been the ISMS members for more than 10 years are eligible for this category. The categories 1S and 3S are for students or persons over 70 years old.