ICMAACS, QIN-JIU-SHAO PRIZE AND YANG-HUI AWARD

by

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History

The International Conference on Mathematical Analysis, Applications and Computational Simulation (ICMAACS) took place for the first time at Shanghai in 2023. It is aimed to provide a high-level platform where mathematicians and scientists exchange recent developments, discoveries, and progress in Pure and Applied Mathematics and their Applications in real-world problems. Its aim is to create a professional knowledge exchange place for mathematicians and scientists to present the original and review works in mathematical sciences and their applications. This conference will focus on the recent developments, discoveries, and progress in the fundamental principles, applications and computational technologies [1]. Every year, it is supported and organized by Qin Institute of Mathematics, Shanghai Hanjing Center of Science and Technology, China, with and some universities from different countries.

Awards

In ICMAACS, we have set up the following awards.

Qin-Jiu-Shao Prize

The Qin-Jiu-Shao Prize, as an international mathematics award, is awarded for the excellent mathematicians, who are devoted to internationally outstanding works in the field of mathematics. It is a most prestigious prize, which is named after the Chinese mathematician in Southern Song Dynasty Qin Jiu-Shao (1208-1268) [2]. He is known for providing a constructive proof for Chinese Remainder Theorem in his monograph *Mathematical Treatise in Nine Sections* [3]. The winners receive a medal, a certificate and a cash award of 5000 RMB. The medal of the Qin-Jiu-Shao Prize is made of the 999 Silver with the gold-electroplated surface, has a diameter of 12 cm and thickness of 0.5 cm, and weighs 600 g.

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The obverse of the Qin-Jiu-Shao Prize is the portrait of Jiu-Shao Qin with numbers and words in Chinese and English. The number 1208-1268 is also inscribed. The obverse of the Qin-Jiu-Shao Prize is shown in fig. 1.

On the reverse is the inscription of the Qin-Jiu-Shao Prize as follows: crown, five stars, and ear of wheat. Moreover, the word *Mathematical Treatise in Nine Sections* is inscribed in Chinese and English, respectively. Two line segments and arcs form a figure. The reverse of the Qin-Jiu-Shao Prize is displayed in fig. 2.



Figure 1. The obverse of the Qin-Jiu-Shao Prize



Figure 2. The reverse of the Qin-Jiu-Shao Prize

Yang-Hui Award

The Yang-Hui Award is awarded to mathematicians, who are devoted to internationally outstanding works in the life. This is a most prestigious award named for Yang Hui (1238-1298) [4], a Chinese mathematician in Southern Song Dynasty, who has discovered the well-known Yang Hui's triangle [5]. This result is 393 years earlier than Pascal's triangle. The winners of this award receive a medal, a certificate and a cash award of 800 RMB. The medal of the Yang-Hui Award is made of the 999 Silver with the gold-electroplated surface, has a diameter of 12 cm, and weighs 500 g. The obverse of the Yang-Hui Award is the portrait of Hui Yang with numbers and words in Chinese and English, respectively. The word *Yang-Hui Award* is inscribed in English and Chinese, respectively. The number *1238-1298* is also inscribed. The obverse of the Yang-Hui Award is given in fig. 3.

On the reverse is the inscription of the Yang-Hui Award as follows: crown, five stars, and ear of wheat. Moreover, the word *Yang Hui's triangle* is inscribed in English and Chinese, respectively. The line segments and circles with numbers 1, 2 and 3 form a figure, which represents the well-known Yang Hui's triangle. The reverse of the Yang-Hui Award is illustrated in fig. 4.



Figure 3. The obverse of the Yang-Hui Award



Figure 4. The reverse of the Yang-Hui Award

ICMAACS Best Paper Presentation Award

The ICMAACS Best Paper Presentation Award is awarded to mathematicians and scientists who present their results during the conference. The winners of this award receive a certificate and are supported by the publishers.



Figure 5. The part of the participants at 2023 ICMAACS

2023 ICMAACS

The 2023 ICMAACS took place in Shanghai on November 22-26, 2023. There are more than 150 participants at 2023 ICMAACS. The part of the participants at 2023 ICMAACS is showed in fig. 5.

As the Committee, Chair and Convener of the Long Shan Mathematical Foundation, Shanghai Hanjing Center of Science and Technology, we invited excellent mathematicians and mathematical physicists to be the selection committee members of all awards.

2023 Qin-Jiu-Shao Prize

The selection committee members of the 2023 Qin-Jiu-Shao Prize are as follows [6]: Prof. Mahouton Norbert Hounkonnou (Chair), University of Abomey-Calavi, Benin, Fellow of TWAS and African Academy of Sciences, Prof. Minvydas Ragulskis, Kaunas University of Technology, Lithuania, Fellow of Lithuanian Academy of Sciences, Prof. Alexei Semenov, Moscow State University, Russia, Fellow of Russian Academy of Sciences, and Prof. Tasawar Hayat, Quaid-i-Azam University, Pakistan, Fellow of TWAS, Pakistan Academy, African Academy and Islamic World Academy of Sciences.



Mahmoud Abdel-Aty, Sohag University, Egypt, awarded the 2023 Qin-Jiu-Shao Prize for his «seminal contributions to the quantum algorithms, quantum optics, and widely-known Yang-Abdel-Aty-Carlo fractional derivative operator»

On July 24, 2023, the selection committee members of the Qin-Jiu-Shao Prize for 2023 had decided to award the Qin-Jiu-Shao Prize for 2023 to Mahmoud Abdel-Aty (showed in fig. 6) of the Sohag University, Egypt [7]. He had received the 2023 Qin-Jiu-Shao Prize for his seminal contributions to the quantum algorithms, quantum optics, and widely-known Yang-Abdel-Aty-Carlo fractional derivative operator.

2023 Yang-Hui Award

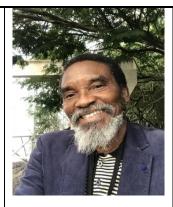
The selection committee members of the 2023 Yang-Hui Award are [6]: Prof. Dumitru Baleanu (Chair), Lebanese American University, Lebanon, Fellow of African Academy of Sciences, Prof. Sergey Odintsov, Institute of Space Sciences, Spain, Foreign Member of Royal Norwegian Academy of Sciences and Letters, Trondheim, and Prof. Alexei Semenov, Moscow State University, Russia, Fellow of Russian Academy of Sciences. The associated selection committee of the 2023 Yang-Hui Award is as follows: Prof. Xiao-Jun Yang, China University of Mining and Technology, China.

On October 13, 2023, the selection committee members of the Yang-Hui Award for 2023 had decided to award the Yang-Hui Award for 2023 to Salvatore Capozziello of Università di Napoli Federico II, Italy, Mahouton Norbert Hounkonnou of University of Abomey-Calavi, Benin, and Delfim F. M. Torres of University of Aveiro, Portugal [8]. The awardees of the Yang-Hui Award for 2023 are presented in tab. 1.

Table 1. Awardees of the Yang-Hui Award for 2023



Salvatore Capozziello,
Università di Napoli Federico II,
Italy, awarded the 2023
Yang-Hui Award for his
«seminal contributions to the
Noether symmetries theory in
extended gravity and curvature
quintessence.».



Mahouton Norbert Hounkonnou, University of Abomey-Calavi, Benin, awarded the 2023 Yang-Hui Award for his «seminal contributions to the deformed quantum algebras.».



Delfim F. M. Torres,
University of Aveiro, Portugal,
awarded the 2023
Yang-Hui Award for his
«seminal contributions to the
mathematical modeling of
COVID-19 and optimal control.».

2023 ICMAACS Best Paper Presentation Award

The 28 younger mathematicians and scientists from China, India, Algeria and Colombia had received the ICMAACS Best Paper Presentation Award at 2023 ICMAACS. The awardees of the ICMAACS Best Paper Presentation Award for 2023 are listed in tab. 2.

Finally, we express thanks to Thermal Science and Society of Thermal Engineers Serbia for support of the ICMAACS.

References

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- [2] Libbrecht, U., Qin Jiushao, in:, Encyclopaedia of the History of Science, Technology, and Medicine in Non-Western Cultures (Selin, H., eds.), Springer, Dordrecht, 2008

Table 2. The awardees of the ICMAACS Best Paper Presentation Award for 2023

Names	Reference No.	Universities	Countries
Sheng Zhang	ICMAACS-2023-01	Bohai University	China
Yong-Shun Liang	ICMAACS-2023-02	Nanjing University of Science and Technology	China
Su-Li Liu	ICMAACS-2023-03	Jilin University	China
Jian-Gen Liu	ICMAACS-2023-04	Changshu Institute of Technology	China
Pranay Goswami	ICMAACS-2023-05	Dr B R Ambedkar University Delhi	India
Wen-Bing Sun	ICMAACS-2023-06	Shaoyang University	China
José Eduardo Sanabria	ICMAACS-2023-07	Universidad de Sucre	Colombia
Abdelghani Lakhdari	ICMAACS-2023-08	National Higher School of Technology and Engineering	Algeria
Hui-Xia Mo	ICMAACS-2023-09	Beijing University of Posts and Telecommunications	China
Adamu Yusuf Inuwa	ICMAACS-2023-10	King lMongkut's University of Technology Thonburi	Thailand
Feng Xu	ICMAACS-2023-11	Suzhou Vocational University	China
Nasiru Salihu	ICMAACS-2023-12	King lMongkut's University of Technology Thonburi	Thailand
Ali Turab	ICMAACS-2023-13	Northwestern Polytechnical University	China
Ibrahim Arzuka	ICMAACS-2023-14	King lMongkut's University of Technology Thonburi	Thailand
Li-Hua Zhang	ICMAACS-2023-15	Hebei University of Economics and Business	China
Fu-Jian Yang	ICMAACS-2023-16	Institute of Rock and Soil Mechanics, Chinese Academy of Sciences	China
Ahmed Refaie Ali	ICMAACS-2023-17	Menoufia University	Egypt
Rui-Yue Yang	ICMAACS-2023-18	China University of Petroleum, Beijing	China
Wen-Hui Tan	ICMAACS-2023-19	National University of Defense Technology	China
Sunil Dutt Purohit	ICMAACS-2023-20	Rajasthan Technical University	India
Jing-Guo Qu	ICMAACS-2023-21	North China University of Science and Technology	China
Jing-Bin Li	ICMAACS-2023-22	China University of Petroleum Beijing	China
Xing-Jie Yan	ICMAACS-2023-23	China University of Mining and Technology	China
Jin-Tang Wang	ICMAACS-2023-24	China University of Petroleum	China
Yi-Ying Feng	ICMAACS-2023-25	Suzhou University	China
Jia-Sheng Fu	ICMAACS-2023-26	CNPC Engineering Technology R&D Company Limited	China
Shan-Jie Su	ICMAACS-2023-27	Xuzhou University of Technology	China
Du Shang	ICMAACS-2023-28	Beijing Jiaotong University	China

^[3] Libbrecht, U., Chinese Mathematics in the Thirteenth Century: "Shu-shu Chiu-chang" of Ch'in Chiu-shao, Dover Publications, 2005

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