



# The 6th Mediterranean International Conference of Pure & Applied Mathematics and Related Areas

## MICOPAM 2023



**Université d'Evry**  
**Paris, FRANCE**  
**August 23–27, 2023**

**Conference Website:**  
**<https://micopam.com>**  
**Conference Venue:**  
**Université d'Evry**

**Dedicated to the respected mathematician**  
**Prof. Dr. Yilmaz SIMSEK**  
**on the occasion of his 60th anniversary**

Prof. Dr. Yilmaz Simsek (was born in Elazığ–Turkey, on 25 October 1963), received the PhD degree in (Generalized Dedekind and Hardy sums) at Cukurova University Adana of Turkey. Professor Simsek's carrier has been started from Adana, Cukurova University, Mersin University, and now continue at Antalya, Akdeniz University. His research interests are "Modular Forms, p-adic Analysis, q-series, Special numbers and polynomials, Special Functions, Generating Functions, Dedekind and Hardy Sums, Umbral Algebra, and Umbral Analysis, Special Functions, Real and Complex Analysis, etc." In addition to writing hundreds of articles and book chapters in distinguished international journals of mathematical and engineering sciences, he has succeeded in making hundreds of conferences and presenting his work to the service of many researchers in the scientific world as his academic goal and philosophy of life. He has been invited to many scientific activities such as international conferences, seminars, visiting professor. He is referee and editor of many mathematical journals. He has founded the journal "Montes Taurus Journal of Pure and Applied Mathematics (ISSN: 2687-4814)".



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#### YILMAZ SIMSEK's Short CV:

Professor Yilmaz Simsek was born on October 25, 1963. He is married and has two daughters.

#### EDUCATION:

- PhD. Cukurova University (Adana-Turkey) – 1993: (Generalized Dedekind and Hardy sums).
- M.Sc. Cukurova University (Adana-Turkey) – 1990: (Hermitian Matrix Inequalities).
- B.Sc. Cukurova University (Adana-Turkey) – 1987.
- Certificate/Diploma Teaching involving Courses in university pedagogy, January 1988.

#### WORK EXPERIENCE:

- Member of the faculty, Department of Mathematics, Faculty of Science, University of Akdeniz since 2005
- Since 2012 Professor
- 2007 – 2012 Associate Professor
- 2005 – 2007 Assistant Professor
- 1993 – 2005 Member of the faculty, Department of Mathematics, Faculty of Arts and Sciences, Mersin University
- 1993 – 2005 Assistant Professor
- 1988 – 1993 Member of the faculty, Mersin Vocational High School, Cukurova University
- 1988 – 1993 Lecturer





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### YILMAZ SIMSEK's Short CV:

#### AWARDS:

- Science Award, Akdeniz University Science Antalya Turkey, Service and Encouragement Awards, November 2011.
- Jangjeon Mathematical Society award 2017, Korea
- Ranking of scientists in Turkish Institutions according to their Google Scholar Citations public profiles.

#### INTERNATIONAL JOURNAL HE FOUNDED:

- Montes Taurus Journal of Pure and Applied Mathematics ISSN: 2687-4814, <https://mtjpamjournal.com>.

#### CURRENT RESEARCH INTERESTS:

- Real and Complex Analysis and their applications
- Analytic Number Theory and its applications
- Modular Forms
- Elliptic Functions
- p-adic Numbers and their applications
- p-adic integrals and their applications
- p-adic analysis and p-adic Distribution
- Generating Functions and their applications
- Special numbers, Special Polynomials
- Special Functions
- Integral Equations and Transforms
- q-Series and q-Analysis
- Modular form and Elliptic functions associated with Dedekind sums and Hardy Sums, the finite sums
- Theta functions
- Families of Zeta type functions
- Dirichlet series and Lambert-type series
- Umbral Algebra and Umbral Analysis and their applications
- Combinatorial Analysis and their applications
- Probability Distribution functions and their Applications
- Computational Science and Engineering
- Computational Algorithms
- Algebra of the Lyndon words
- Linear Algebra and their applications
- De Bruijn sequences
- Generating functions and special functions associated with Superoscillations
- Applications of generating functions to areas such as the human ear and teeth



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#### YILMAZ SIMSEK's Short CV:

**Over and above**, Professor Simsek continues to work as a referee and editor in many different national and international journals. Professor Simsek advises more than 30 graduate and doctoral students and continues to increase intensively. He provides trainings in many countries with the Erasmus exchange program and the Mevlana exchange program. As a Visiting Professor, Professor Simsek gives trainings and scientific studies in many countries. More than 300 articles and book chapters have been published, and he continues to work on these subjects either alone, either with students or with other international distinguished scientists. Professor Simsek has participated in more than 120 international symposiums and conferences and presented oral presentations in almost every part of the world and in most of the countries, despite the pandemic, he continues to intensify these oral presentations. In addition to these, Professor Simsek has organized many special workshops and has made very important contributions to many workshops and continues to do so. Professor Simsek has devoted his life to mathematics, and his only notable hobby is listening, studying mathematics or exploring new results. In this way, he has made it a philosophy of life that he is very peaceful and can do much more useful work for humanity. In conclusion, life is beautiful and meaningful doing and teaching math; for this purpose, it continues on its way tirelessly. With this philosophy of mathematics, Professor Simsek gave his two precious and beloved daughters, Associate Professor Dr. Burcin Simsek (Probability, Statistics and Biostatistics and their applications in medicine and other sciences) and Dr. Buket Simsek (Probability, Statistics and Biostatistics and their applications in medicine and engineering) has also chosen him as a colleague in different fields. He gained very deep knowledge from these two precious daughters. It is worth mentioning that the source of these successes is the tremendous and unforgettable support of his precious wife, Saniye Simsek. Professor Simsek sincerely believe that he will serve for many more years, and write more articles and books, thanks to the support and love of his family, whom he loves very much, the respect and support of his very valuable students, and all his distinguished friends around the world with whom Professor Simsek has collaborated and written articles. Further details about Professor Simsek's professional achievements and scholarly accomplishments, as well as honors, awards and distinctions, can be found at the following website: <https://avesis.akdeniz.edu.tr/ysimsek>.





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### MICOPAM 2023

MICOPAM conference series has been started by organizing it in Antalya-Turkey in 2018, and then the latter has been held in Paris, France in 2019. The third, which was postponed in 2020 due to the coronavirus pandemic, was held in Antalya, Turkey as MICOPAM 2020-2021 together with the fourth one. The fifth has been held in Antalya, Turkey in 2022. Over the last five years; this conference series brought together the researchers, who work on pure & applied mathematics and related areas, from all over the world. This conference series continues this year by the organization of “The 6th Mediterranean International Conference of Pure & Applied Mathematics and Related Areas (MICOPAM 2023)” under the organization of **Professor Dr. Abdelmejid Bayad**.

The 6th Mediterranean International Conference of Pure & Applied Mathematics and Related Areas (MICOPAM 2023) is dedicated to the respected mathematician **Professor Dr. Yılmaz Simsek** on the occasion of his 60th anniversary.





# The 6th Mediterranean International Conference of Pure & Applied Mathematics and Related Areas

## MICOPAM 2023

### AIM AND SCOPE OF MICOPAM 2023:

The aim of the conference MICOPAM 2023 is to bring together leading scientists of the pure and applied mathematics and related areas to present their research, to exchange new ideas, to discuss challenging issues, to foster future collaborations and to interact with each other.

MICOPAM 2023 symposium will take place in a **hybrid form** with **Physical** and **Virtual (Online)** participation.

MICOPAM 2023 symposium welcomes speakers whose talk or poster contents are mainly related to the following areas:

- ❖ **Mathematical Analysis**
  - ❖ **Algebra and Analytic Number Theory**
    - ❖ **Combinatorics and Probability**
- ❖ **Pure & Applied Mathematics and Related Areas**
  - ❖ **Mathematical Statistics and its applications**
    - ❖ **Polynomials and Orthogonal systems**
    - ❖ **Special numbers and Special functions**
      - ❖ **q-analysis and its applications**
  - ❖ **Approximation Theory and Optimization**
    - ❖ **Extremal Problems and Inequalities**
- ❖ **Integral Transformations, Equations and Operational Calculus**
  - ❖ **Differential Equations and their applications**
    - ❖ **Geometry and Its Applications**
    - ❖ **Numerical Methods and Algorithms**
      - ❖ **Scientific Computation**
- ❖ **Mathematical Methods and Computation in Engineering**
  - ❖ **Mathematical Geosciences**
- ❖ **p-adic numbers, p-adic analysis and their applications**
  - ❖ **Mathematical Modelling**
    - ❖ **Marketing, Business and their applications**
- ❖ **Mathematical Methods for Engineering Applications**





# The 6th Mediterranean International Conference of Pure & Applied Mathematics and Related Areas

## MICOPAM 2023

### Scientific Committee

- ❖ Chandrashekar Adiga, India
- ❖ Elvan Akin, USA
- ❖ Mustafa Alkan, Turkey
- ❖ Abdelmejid Bayad, France
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- ❖ Seçil Çeken, Turkey
- ❖ Ahmet Sinan Cevik, Turkey
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- ❖ Miljan Knežević, Serbia
- ❖ Dmitry Kruchinin, Russia
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- ❖ Helmuth R. Malonek, Portugal
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- ❖ Gradimir V. Milovanović, Serbia
- ❖ Hussein Mourtada, France
- ❖ Abbas C. Movahhedi, France
- ❖ Figen Öke, Turkey
- ❖ Mehmet Ali Özarslan, N. Cyprus
- ❖ Manuel López-Pellicer, Spain
- ❖ Tibor Poganj, Croatia
- ❖ Dora Pokaz, Croatia
- ❖ Abdalah Rababah, Jordan
- ❖ Themistocles Rassias, Greece
- ❖ Lothar Reichel, USA
- ❖ Ekrem Savas, Turkey
- ❖ Yilmaz Simsek, Turkey
- ❖ Burcin Simsek, USA
- ❖ Miodrag Spalević, Serbia
- ❖ Wolfgang Sprößig, Germany
- ❖ Hari M. Srivastava, Canada
- ❖ Marija Stanić, Serbia
- ❖ Richard Tremblay, Canada

### International Organizing Committee

- ❖ Mustafa Alkan, Turkey
- ❖ Abdelmejid Bayad, France
- ❖ Ayse Yilmaz Ceylan, Turkey
- ❖ Rahime Dere, Turkey
- ❖ Satish Iyengar, USA
- ❖ Neslihan Kilar, Turkey
- ❖ Daeyeoul Kim, South Korea
- ❖ Taekyun Kim, South Korea
- ❖ Irem Kucukoglu, Turkey
- ❖ Dmitry Kruchinin, Russia
- ❖ Nazim I. Mahmudov, N. Cyprus
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- ❖ Ortaç Öneş, Turkey
- ❖ Mehmet Ali Özarslan, N. Cyprus
- ❖ Dora Pokaz, Croatia



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### Local Organizing Committee

- ❖ Busra Al, Turkey
- ❖ Mustafa Alkan, Turkey
- ❖ Abdelmejid Bayad, France
- ❖ Elif Bozo, Turkey
- ❖ Ayse Yilmaz Ceylan, Turkey
- ❖ Rahime Dere, Turkey
- ❖ Damla Gun, Turkey
- ❖ Neslihan Kilar, Turkey
- ❖ Irem Kucukoğlu, Turkey
- ❖ Nazim I. Mahmudov, N. Cyprus
- ❖ Ortaç Öneş, Turkey
- ❖ Mehmet Ali Özarslan, N. Cyprus
- ❖ Ezgi Polat, Turkey
- ❖ Buket Simsek, Turkey
- ❖ Fusun Yalçın, Turkey

### Heads of Organizing Committee

- ❖ Abdelmejid Bayad, France
- ❖ Mustafa Alkan, Turkey
- ❖ Rahime Dere, Turkey
- ❖ Neslihan Kilar, Turkey
- ❖ Irem Kucukoglu, Turkey
- ❖ Ortaç Öneş, Turkey

### Editors of the Proceedings Book of MICOPAM 2023

- ❖ Abdelmejid Bayad, France
- ❖ Mustafa Alkan, Turkey
- ❖ Irem Kucukoglu, Turkey
- ❖ Ortaç Öneş, Turkey





## The 6th Mediterranean International Conference of Pure & Applied Mathematics and Related Areas

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#### INVITED SPEAKERS OF MICOPAM 2023

- ❖ Chandrashekar ADIGA, (University of Mysore, India)
  - ❖ Isabel CAÇÃO, (University of Aveiro, Portugal)
- ❖ Marc-Antoine COPPO, (Université Nice, France)
  - ❖ Seçil ÇEKEN, (Trakya University, Turkey)
- ❖ Satish IYENGAR, (University of Pittsburgh, USA)
- ❖ Subuhi KHAN, (Aligarh Muslim University, India)
- ❖ Taekyun KIM, (Kwangwoon University, South Korea)
- ❖ Daeyeoul KIM, (Jeonbuk National University, South Korea)
  - ❖ Rolf Sören KRAUBHAR, (University of Erfurt, Germany)
- ❖ Nazim I. MAHMUDOV, (Eastern Mediterranean University, N. Cyprus)
- ❖ Gradimir V. MILOVANOVIC, (Serbian Academy of Sciences and Arts, Serbia)
  - ❖ Hussein MOURTADA, (Université Paris, France)
  - ❖ Abbas C. MOVAHHEDI, (Université Limoges, France)
    - ❖ Figen ÖKE, (Trakya University, Turkey)
- ❖ Mehmet Ali ÖZARSLAN, (Eastern Mediterranean University, N. Cyprus)
- ❖ Manuel LÓPEZ-PELLICER, (Universitat Politècnica de Valencia, Spain)
  - ❖ Dora POKAZ, (University of Zagreb, Croatia)
- ❖ Burçin SIMSEK, (Bristol-Myers Squibb Company, USA)
  - ❖ Marija STANIC, (University of Kragujevac, Serbia)
- ❖ C. K. SUBBARAYA, (Adichunchanagiri University, India)

#### The conference MICOPAM 2023 is listing on the following Mathematics Calendars:

- ❖ **American Mathematical Society (AMS) :: Mathematics Calendar,**  
See: <https://www.ams.org/cgi-bin/mathcal/mathcalendar.pl>
- ❖ **European Mathematical Society (EMS) Events,**  
See: <https://euromathsoc.org/events>
- ❖ **COMS, Conference Listings,**  
See: <https://conference-service.com/conferences/fr/mathematics-research.html>



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### SUPPORTING JOURNALS:

The participants of the conference MICOPAM 2023 will have the right to submit their full manuscripts (compatible with the scope and publication policy of the corresponding journal) for peer review and possible publication in the following supporting journals:

- ❖ **Montes Taurus Journal of Pure and Applied Mathematics (ISSN: 2687-4814)** – [Indexed in Index Copernicus International (ICI Journals Master List), Google Scholar, Semantic Scholar, CiteFactor, Journal Factor (JF), and General Impact Factor (GIF)]
- ❖ **Proceedings of the Jangjeon Mathematical Society (ISSN: 1598-7264)** – [Indexed in Scopus]
- ❖ **Advanced Studies in Contemporary Mathematics (ISSN:1598-7264)**-[Indexed in Scopus]
- ❖ **Gazi University Journal of Science Part A: Engineering and Innovation (e-ISSN:2147-9542)** – [Indexed in TR DİZİN, Index Copernicus (ICI) , SOBIAD, Directory of Research Journals Indexing (DRJI), Academic Resource Index (RESEARCHBIB), ASOS Index (ASOS), Scientific Indexing Services, Info Base Index, Google Scholar]
- ❖ **Journal of Inequalities and Special Functions (ISSN 2217-4303)** – [Indexed in Web of Science (WoS) by Emerging Sources Citation Index (ESCI), Mathematical Reviews (MathSciNet) Zentralblatt fur Mathematik, and EBSCO]
- ❖ **Journal of Mathematical Analysis (ISSN 2217-3412)** – [Indexed in Web of Science (WoS) by Emerging Sources Citation Index (ESCI), Zentralblatt, Mathematical Reviews (MathSciNet), EMIS, and Google Scholar]
- ❖ **Bulletin of Mathematical Analysis and Applications (ISSN 1821-1291)** – [Indexed in Web of Science (WoS) by Emerging Sources Citation Index (ESCI), Zentralblatt, Mathematical Reviews (MathSciNet), EMIS, and Google Scholar]
- ❖ **Journal of Classical Analysis (ISSN 1848-5979)** – [Indexed in **Mathematical Reviews** (MathSciNet)] (Submissions are free of charge during 2023. That is, during 2023 there is no Article Processing Charge (APC) for the accepted papers in the Journal of Classical Analysis (JCA). Therefore the Special Issue will be also organized in this manner)





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### PAPER SUBMISSION:

Conference participants are encouraged to submit their work by sending an email to the conference mail address: [micopam2018@gmail.com](mailto:micopam2018@gmail.com).

After evaluation process by the scientific committee of the conference, accepted Full-text Proceedings (at least 2 pages long) will be published in *“Proceedings Book of the 6<sup>th</sup> Mediterranean International Conference of Pure & Applied Mathematics and Related Areas (MICOPAM 2023)”* (with ISBN number) and this book will be published after the conference is over.

Hence, we would like to point out that at least one author of the accepted Full-text Proceedings must register and must attend to MICOPAM 2023 for presenting their studies.

### References

- [1] T. M. Apostol, *On the Lerch zeta function*, Pacific J. Math. **1** (2), 161–167, 1951.
- [2] T. M. Apostol, *Modular functions and Dirichlet series in number theory*, Springer, 1990.
- [3] M. Acikgoz and S. Araci, *On the generating function for Bernstein polynomials*, American Institute of Physics Conference Proceedings CP1281 (2010) 1141–1144.
- [4] T. M. Apostol, *Modular functions and Dirichlet series in number theory*, Springer, 1990.
- [5] C. A. Charalambides, *Enumerative Combinatorics*, Chapman & Hall CRC, Boca Raton, London New York, 2005.
- [6] R. Chattamvelli and R. Shanmugan, *Proceedings of the 11th International Conference on Mathematics in Engineering and the Applied Sciences, Synthesis, Science, and Technology (SLEST) (2023)*