



**Michael N. Vrahatis**  
*Professor Emeritus*

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**Résumé** – Last updated on January 20, 2025

**Biographical synopsis:** Michael N. Vrahatis (Greek: Μιχαήλ Ν. Βραχάτης) was born in Kalamata, Greece, on April 27, 1955. He received his Diploma in Mathematics (first academic degree, “Ptychio”) from the Department of Mathematics of the University of Patras in 1978 and his PhD in Mathematics from the same Institution in 1982. His PhD advisor was Prof. Dr. Kosmas I. Iordanidis. He subsequently performed his military service in the Hellenic Navy from January 1983 to March 1985. He has served in all academic ranks from lecturer to professor in the Department of Mathematics at the University of Patras. He was a professor in the Department of Mathematics at the University of Patras since 2000 and became a professor emeritus of the University of Patras in 2023. He is the founder of the Computational Intelligence Laboratory of the same department which he has been directing since its beginning in 2004. He was also serving as the first director of the newly founded Institute of Artificial Intelligence of University Research Center of Patras. He has teaching experience at the University of Patras for 41 years at the undergraduate level and 33 years at the postgraduate level. He also has 21 years of teaching experience at the Hellenic Open University at the undergraduate level through the distance learning process. Several of his doctoral and/or postdoctoral students serve as full professors, associate professors, assistant professors or lecturers in Greece and abroad.

**Scientific visiting:** He was a visiting research fellow (faculty member) at the Department of Mathematics, Cornell University, Ithaca, NY, USA (1987-1988). He was a visiting professor at: a) INFN (Istituto Nazionale di Fisica Nucleare), Bologna, Italy (1992, 1994, 1998), b) Department of Computer Science, Katholieke Universiteit Leuven, Belgium (1999), c) Department of Mechanical Engineering, Center for Ocean Engineering, Design Laboratory, MIT, Cambridge, MA, USA (2000), and d) Collaborative Research Center “Computational Intelligence” (SFB 531) at the Department of Computer Science, University of Dortmund, Germany (2001). He was a visiting researcher at: a) CERN (European Organization of Nuclear Research), Geneva, Switzerland (1992), and b) INRIA (Institut National de Recherche en Informatique et en Automatique), Sophia-Antipolis, France (1998, 2003, 2004, 2006).

**Scientific activities:** He has served as an experienced reviewer and evaluator of several proposals for research funding organizations and centers of excellence, including, among others, ERC (EU), ESF (EU), FWF (Austria), GSRT (Greece), HFRI (Greece), IAP (Belgium), ISF (Israel), MITACS (Canada), NSF (USA). He has participated in the organization of over 350 conferences serving at several positions, and participated in over 260 conferences, congresses and advanced schools as active participant, speaker or keynote speaker. He has served as a reviewer for 73 international scientific journals and 7 books. His editorial activities include work for 23 international scientific journals, journal special issues and book series.

**Scientific objectives and research interests:** (A) **Scientific objectives:** His main scientific objectives are: a) the investigation and mathematical foundation of methods in artificial intelligence, particularly in the fields of computational intelligence and natural computing, b) the development of innovative methods in these fields, c) the application of the acquired expertise to address challenging real-life problems in different branches of science and the search of directions of theoretical mathematical results towards applications, and d) the dissemination of knowledge to young researchers and scholars. (B) **Research interests:** His current research interests focus on the thematic areas: a) mathematics, b) natural computing and computational intelligence, c) global optimization, d) reliable computing and imprecise data, and (e) neural networks and machine learning & intelligence.

**Publication metrics:** (A) **Number of publications:** The corpus of his work consists of over 400 publications. Specifically: a) 17 books (including one book published in USA), b) 155 papers in international refereed journals, c) 26 papers in invited and refereed book chapters, d) 75 papers in refereed book chapters and edited volumes, e) 173 papers in refereed conference proceedings, and f) 83 other scholarly publications (including international technical reports (one of CERN, three of INRIA, three of University of Dortmund), invited book-reviews, seminar proceedings, two non-refereed journal papers, one non-refereed full-paper conference article, and eleven arXiv preprints, among others). (B) **Journal impact factor and rank:** According to the “2021 Journal Citation Reports (Clarivate Analytics, 2022)” the number of his publications with 2021 Journal Impact Factor is 138, with the highest being 16.497 (IEEE T EVOLUT COMPUT). The accumulated impact factor of the published journal papers is 478.157 and the average impact factor is 3.465. Also, according to “2021 SJR-SCImago Journal & Country Rank” these 138 journal publications are classified as follows: Q1: 80, Q2: 42, Q3: 12, Q4: 4. (C) **Number of citations:** According to [Google Scholar](#) his work has been cited 20491 times and his top five most cited publications have been cited 6066 times. Also, 46 of his publications have received more than 100 citations each (i100-index=46). His highest-cited paper has been cited 2174 times, while his h-index is 64, his g-index is 135 and his i10-index is 225. According to [Research.com](#) his D-index is 58 in mathematics and 57 in computer science.