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Multi-Objective Particle Swarm Optimizers: Past, Present and Future

SPEAKER Prof Carlos Artemio Coello Coello

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Mexico

DATE 3 November 2017(Friday)

TIME 9:30 am - 10:30 am

VENUE CS Seminar Room, Y6405
6th Floor, Yellow Zone
Yeung Kin Man Academic Building
City University of Hong Kong
83 Tat Chee Avenue
Kowloon Tong

ABSTRACT

This talk will provide a review of the research that has been conducted on the use of particle swarm optimization for solving multi-objective problems. The talk will emphasize the main algorithmic developments that have been reported in the specialized literature, and will include a brief analysis of some of the most representative multi-objective particle swarm optimizers (MOPSOs) that have been proposed so far. The talk will also include some of the real-world applications of these MOPSOs and will conclude with some of the potential paths for future research in this area.

BIOGRAPHY

Carlos Artemio Coello Coello received a PhD in Computer Science from Tulane University (in the USA) in 1996. His PhD thesis was one of the first in a field which is now called "Evolutionary Multi-objective Optimization".

He currently has over 450 publications which report over 35,900 citations in Google Scholar (his h-index is 76).

Prof Coello has been a Senior Research Fellow in the Plymouth Engineering Design Centre (in England) and a Visiting Professor at DePauw University (in the USA). He is currently a Full Professor with distinction (Investigador Cinvestav 3F) at the Computer Science Department of CINVESTAV-IPN in Mexico City, Mexico.

He currently serves as associate editor of several journals, including "IEEE Transactions on Evolutionary Computation", "Evolutionary Computation", "Journal of Heuristics", "Pattern Analysis and Applications", "Applied Soft Computing" and "Computational Optimization and Applications".

He has received several national awards, including the "National Research Award" from the Mexican Academy of Science (in 2007), the "Medal to the Scientific Merit" from Mexico City's Congress, the "Ciudad Capital: Heberto Castillo 2011 Award" in Basic Science, the "2012 Scopus Award" (Mexico's edition), and the "2012 National Medal of Science in Physics, Mathematics and Natural Sciences" from Mexico's Presidency (this is the most important award that a scientist can receive in Mexico). He has also received several international awards, including the prestigious "2013 IEEE Kiyomi Tomiyasu Award" and the "2016 Third World Academy of Sciences (TWAS) Award in Engineering Sciences". Since January 2011, he is an IEEE Fellow for his "contributions to multi-objective optimization and constraint-handling techniques".

All are welcome!



In case of questions, please contact Prof TAN, Kay Chen at Tel: 3442 8504, E-mail: kaytan@cityu.edu.hk, or visit the CS Departmental Seminar Web at <http://www.cs.cityu.edu.hk/>.

