

Advanced Optimization Methods and Applications

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1. Introduction

Optimization methods are finding more applications in all domains, as they play an essential role when dealing with real-life problems. Algorithms for such problems are being continuously developed and improved in order to obtain higher-quality solutions within a reasonable time frame. Metaheuristic methods inspired by the behavior of populations of different groups of people or by the behavior of swarms of animals or insects are currently used to solve optimization problems where optimal solutions cannot be obtained using exact methods in a reasonable amount of time. These metaheuristic algorithms can be classified into four groups: mathematics algorithms, physics algorithms, sociology algorithms, and biology algorithms [1]; or, another classification is evolutionary algorithms, physics-based algorithms, human-based algorithms, and swarm-based algorithms [2]. Metaheuristic algorithms deal with both discrete optimization (e.g., the traveling salesman problem [3]) and continuous optimization problems (e.g., the calculation of parameters of photovoltaic cells and panels [4]). In this Special Issue, different optimization problems are addressed using different methods, where many of the approaches consist of metaheuristic algorithms. The topic of this Special Issue (optimization methods and their applications) attracted many researchers from different countries and different domains (computer science, mathematics, electronics, engineering, economics, statistics, etc.). In Section 2, some statistics are presented about the papers and the authors of the Special Issue. In Section 3, the authors are presented together with their affiliations and contributions to this Special Issue.

2. Statistics of the Special Issue

In total, there were 50 papers submitted to this Special Issue. Out of these papers, 20 papers were published (40%), 39 papers were rejected (58%), and 1 paper (2%) was withdrawn (see Figure 1).

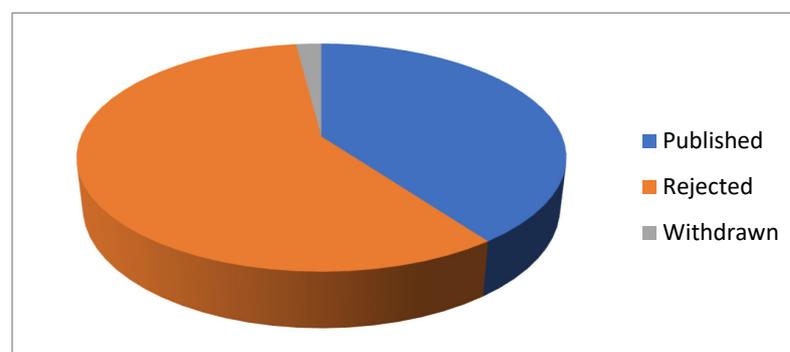


Figure 1. Papers submitted for publication in the Special Issue.



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There were 70 authors that contributed to the papers that were published in the Special Issue. Most of them (64 authors) contributed to only one paper, while the other 6 authors contributed to two papers. Table 1 and Figure 2 present the geographic distribution of the authors. The authors are from 17 different countries.

Table 1. Geographic distribution of authors by country.

No.	Country	No. of Authors
1	China	14
2	Egypt	9
3	India	7
4	Saudi Arabia	6
5	Romania	5
6	Chile	4
7	Japan	4
8	Greece	3
9	Lithuania	3
10	Morocco	3
11	Spain	3
12	Thailand	3
13	Ghana	2
14	Bangladesh	1
15	Colombia	1
16	Iran	1
17	UK	1

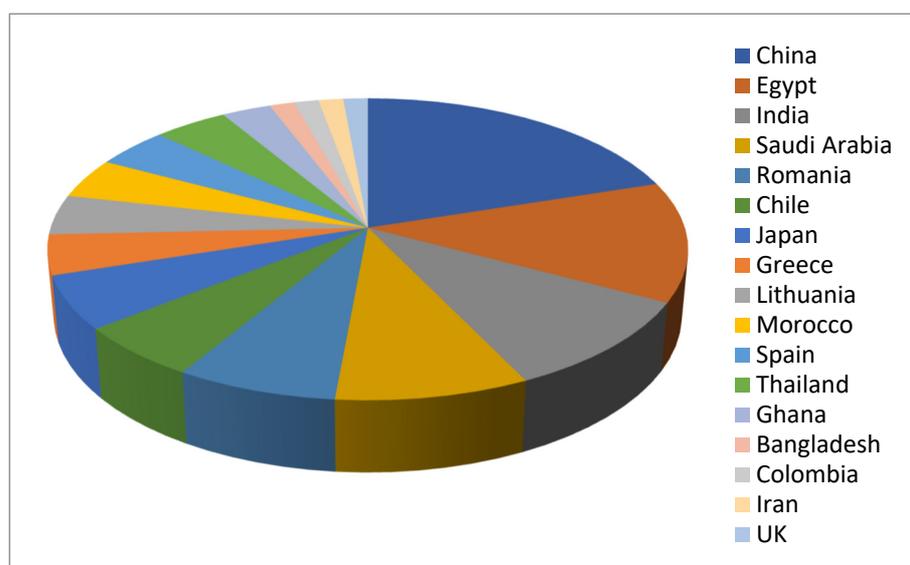


Figure 2. Geographic distribution of authors by country.

3. Authors of the Special Issue

The authors of this Special Issue and their main affiliations are shown in Table 2. The average number of authors per manuscript is 3.5.

Table 2. Authors and their affiliations.

No.	Author's Name	Affiliation(s)	Country	Papers
1	Rana Muhammad Adnan	School of Economics and Statistics, Guangzhou University, Guangzhou	China	[5]
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Table 2. Cont.

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