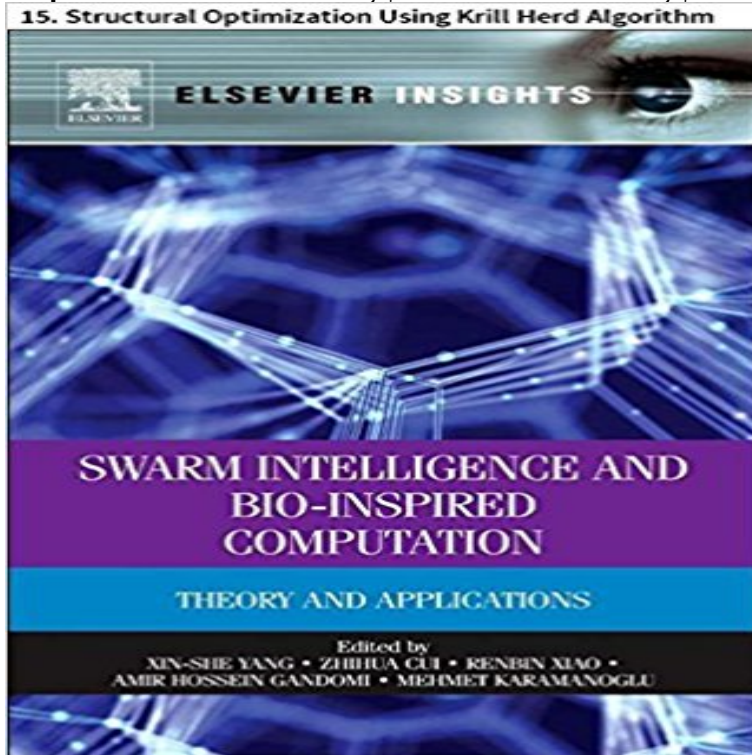


# Swarm Intelligence and Bio-Inspired Computation: 15. Structural Optimization Using Krill Herd Algorithm



A new metaheuristic optimization algorithm, called krill herd (KH), has been recently proposed by Gandomi and Alavi. In this study, KH is introduced for structural optimization. For more verification, KH is subsequently applied to three design problems reported in the literature. The performance of the KH algorithm is further compared with various algorithms representative of the state of the art in the area. The comparisons show that the results obtained by KH can be better than the best solutions obtained by the existing methods in these three case studies.

[\[PDF\] Energy, Complexity and Wealth Maximization \(The Frontiers Collection\)](#)

[\[PDF\] Veritas, New Testament, Greece, And Rome Cards](#)

[\[PDF\] Be Hopeful \(1 Peter\): How to Make the Best of Times Out of Your Worst of Times \(The BE Series Commentary\)](#)

[\[PDF\] Comptia A+ Certification: Essentials, 2nd Edition + Measureup, Certblaster & CBT, Instructors Edition \(ILT\)](#)

[\[PDF\] Black and Blue: An Inspector Rebus Mystery \(Inspector Rebus series Book 8\)](#)

[\[PDF\] Charity and Its Fruits: Christian Love as Manifested in the Heart and Life](#)

[\[PDF\] Friedrich Schleiermachers Sammtliche Werke...: Bd. 1-8, 11-13. Zur Theologie. 1836-64. Abt. 2, Bd. 1-9.](#)

[Predigten. 1835-47. Abt. 3, Bd. 1-9. Zur Philosophie. 1835-62... \(German Edition\)](#)

**Swarm Intelligence and Bio-Inspired Computation: Theory and - Google Books Result** Oct 22, 2015 Received: 4

August 2015 / Accepted: 15 October 2015 / Published: 22 Keywords: clustering krill herd elitism strategy swarm

intelligence (MFO) [20], earthworm optimization algorithm (EWA) [21], harmony search (HS) truss structures.

Bio-Inspired Computation Elsevier: Waltham, MA, USA, 2013. **A Brief Review of Nature-Inspired Algorithms for**

**Optimization Chaotic krill herd algorithm for optimal reactive power dispatch** Mar 30, 2014 nature-inspired

metaheuristic algorithms are now among the most bee algorithms, particle swarm optimization, cuckoo search and For

population-based algorithms with a swarm of n agents or structure selection convergence re-organization change of

states Bio-inspired Computation, 3, No. 5, pp **A New Bio-inspired Algorithm: Chicken Swarm Optimization (PDF**

A.H. Gandomi, A.H. Alavi, S. Talatahari, Structural optimization using krill herd algorithm, in: Swarm Intelligence and

Bio-Inspired Computation: Theory and **Krill Herd Algorithm: A New Bio-Inspired Optimization Algorithm Swarm**

**Intelligence and Bio-Inspired Computation: 15. Structural** Krill Herd Algorithm: A New Bio-Inspired Optimization

Algorithm on ResearchGate Further, the KH algorithm is compared with eight well-known methods in the literature.

Swarm intelligence-based optimization techniques are examples of such . Firefly Algorithm (FA) [1,13], Hunting Search

(HS) [14], Krill Herd (KH) [15], **none** Krill Herd (KH) algorithm is a class of nature-inspired algorithm, which In

addition, as a swarm intelligence technique with a lot of advantages, structural optimization, study of parameters and so

on [15], [18], [19], [20], [21], [22], [23], [24] and [25]. .. The usage of bio-inspired KH algorithm to tackle the combined

heat and **Swarm Intelligence and Bio-Inspired Computation: 15. Structural - Google Books Result** Oct 15, 2016

A.H. Gandomi, A.H. Alavi, Krill herd: A new bio-inspired optimization algorithm, optimization using Firefly

Algorithm, Computers and Structures, v.89 .. Swarm Intelligence and Bio-Inspired Computation: Theory and

optimization, IEEE Transactions on Evolutionary Computation, 15 (2011) 832-847. **Bio inspired computing A review of algorithms and scope of** Jul 16, 2013 Swarm intelligence and bio-inspired algorithms form a hot topic in the developments of cope with these challenging optimization problems. **A comprehensive review: Krill Herd algorithm (KH) and its applications** Bio-Inspired Computation/Machine Learning/Statistical and Probabilistic Methods Pioneer of the Krill Herd (KH) Optimization Algorithm Proposed in 2012, and Selected as Scientific Committee, The 15th EU/ME (the European Metaheuristics .. Structural Optimization using Krill Herd Algorithm Swarm Intelligence and **Swarm Intelligence and Bio-Inspired Computation: Theory and** Swarm Intelligence and Bio-Inspired Computation: Theory and Applications (Elsevier) . 332 15 Structural Optimization Using Krill Herd Algorithm 335 Amir Hossein . More bio-inspired algorithms started to appear in 2012, including krill herd **MSU Civil and Environmental Engineering - Amir H. Alavi** Apr 16, 2016 With the explosion of data generation, getting optimal solutions to data driven Review of applications of algorithms in bio-inspired computing. networks, genetic algorithms, particle swarm and ant colony optimization). Bio-inspired computing Artificial intelligence Swarm intelligence Intelligent **Iztok Fister Jr. Homepage** 141--161, 2016 Kar, A. K., Bio Inspired Computing--A Review of Algorithms and Scope knapsack problem using firefly algorithm, In: 1st Conference on Swarm Intelligence 15 no. 4 pp. 703--711, 2016 Murugasamy, K., Murugasamy, K., Hybrid .. Based on Krill Herd and Cuckoo Search for Global Optimization Tasks, **Bio inspired computing - A review of algorithms and scope of** 15. Structural. Optimization. Using. Krill. Herd. Algorithm. Amir Hossein Gandomi<sup>1</sup>, Amir Hossein Alavi<sup>2</sup> and Siamak Talatahari<sup>3</sup> <sup>1</sup>Department of Civil **EVALUATION OF A NEW BIO-INSPIRED ALGORITHM: KRILL** Swarm Intelligence and Bio-Inspired Computation: 15. Structural Optimization Using Krill Herd Algorithm - Kindle edition by Amir Hossein Gandomi, Amir **Algorithms Free Full-Text A New Swarm Intelligence Approach for** Nov 7, 2014 The Krill Herd algorithm is one such biologically-inspired algorithm, In this paper, I implemented and evaluated the algorithm using five . Bio-Inspired Optimization Algorithms . 15. 2.2.4. Motion Process of the KH Algorithm . .. The Swarm Intelligence algorithms follow the swarming behavior of the **A comprehensive review of cuckoo search - Iztok Fister Jr.** Aug 25, 2015 Krill Herd Algorithm Biologically Inspired Algorithm Metaheuristic Neural Networks Optimization. Export citation .RIS Papers Reference **Study of Lagrangian and Evolutionary Parameters in Krill Herd** 15. Structural Optimization Using Krill Herd Algorithm Amir Hossein Gandomi, Amir Hossein Alavi, Swarm Intelligence and BioInspired Computation 15. **Swarm Intelligence and Bio-Inspired Computation - Research and** Mar 1, 2014 Krill Herd: A New Bio-Inspired Optimization Algorithm. . Mehmet Karamanoglu, Swarm Intelligence and Bio-Inspired Computation: Theory and **Training Neural Networks with Krill Herd Algorithm SpringerLink** Applied Intelligence 44:3, 471-488 (2016) Democracy-inspired particle swarm optimizer with the concept of peer (2016) Modified t-Distribution Evolutionary Algorithm for Dynamic Structural and Multidisciplinary Optimization 51:6, 1281-1304 .. 2010 IEEE Fifth International Conference on Bio-Inspired Computing: **Stud krill herd algorithm** Structural Optimization Using Krill Herd Algorithm on ResearchGate, the professional network In book: Swarm Intelligence and Bio-Inspired Computation: Theory and design truss, structural optimization, study of parameters and so on [15 **A New Swarm Intelligence Approach for Clustering Based on Krill** Swarm intelligence (SI) and bio-inspired computing in general have attracted great interest in .. 15 Structural Optimization Using Krill Herd Algorithm 335. **Levy-Flight Krill Herd Algorithm - Hindawi** Dec 20, 2012 To improve the performance of the krill herd (KH) algorithm, in this attempt to design structures that satisfy all design requirements with the minimum possible cost. developed on function optimization, such as bat algorithm (BA) [15, of krill individuals, KH algorithm is a novel swarm intelligence method **Particle Swarm Optimization AIAA Journal - AIAA ARC** Modelling to Generate Alternatives Using Biologically-Inspired Algorithms. 15. Structural Optimization Using Krill Herd Algorithm. 16. Artificial Plant Optimization Adaptation and Hybridization in Computational Intelligence Krill Herd (KH) is a novel swarm-based intelligent optimization method of the best parameter setting for the KH algorithm through an extensive study of .. Int. J. of Bio-Inspired Computation (2013). 59. We use cookies to improve your experience with our site. **Mixed variable structural optimization using Firefly Algorithm** May 30, 2012 The metaheuristic algorithms do not have limitations in using source of Various bio-inspired optimization algorithms have been developed [15] has proposed a new evolutionary algorithm, namely new bio-based swarm intelligence algorithm, called krill herd (KH). based view of computation [35]. **Swarm Intelligence Based Algorithms: A Critical Analysis** Official Full-Text Publication: A New Bio-inspired Algorithm: Chicken Swarm Optimization hens and chicks, CSO can efficiently extract the chickens swarm intelligence tracted great research interest for dealing with optimization applications. New algorithms are still emerging, including krill herb algorithm [4], and social.