

## Mutation Operator and Algorithm Parameter Selection of Differential Evolution based on Fitness Landscape

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83 Tat Chee Avenue  
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### ABSTRACT

Genetic programming (GP) is a branch of evolutionary computation, a method for finding the most fitted computer programs by means of artificial evolution. The genetic programming are usually represented as trees consisting of functions and terminal symbols. Its main idea is: n-ary trees represent the solution space of the problem, terminal nodes denote independent variables of the problem, intermediate nodes represent the function combined with independent variables, root note denotes the final output function, In general, GP is used to build the economic model.

### BIOGRAPHY

Dr. Kangshun Li is currently vice chairman of IEEE Guangzhou Computational Intelligence Society (CIS), director of Computational Intelligence Committee of Guangdong Province, a senior member of IEEE and a full professor with South China Agricultural University (SCAU), Guangzhou, China. He also holds the dean position in School of Information at SCAU. He received his B.Sc. degree in computational mathematics from Nanchang University, Nanchang, China, and Ph.D. degree in computer software and theory from Wuhan University, Wuhan, China, respectively. He worked as post-doctor in control theory and control engineering of Institute of Automation, Chinese Academy of Science from 2007 to 2009, director (senior engineer) in computer center of statistical department of Ganzhou District, Jiangxi Province, China from 1983 to 2002, and a professor (supervisor in computer science and supervisor in communication both) in School of Information Engineering of Jiangxi University of Science and Technology from 2003 to 2008. Since 2008, he has been a full professor and Ph.D. supervisor at SCAU. In 2009 and 2014, he visited University of Calgary and Chinese University of Hong Kong as a visiting professor, respectively. His current research interests are machine learning, artificial intelligence, image recognition, software engineering, network communication, evolutionary computation, big data modeling and neural network. He has published over 147 papers in journals and conferences, including 27 indexed by SCI and 105 indexed by EI, and has published 3 monograph books. He is leading and has completed over 40 projects as the PI, funded by the National Natural Science Foundation of China, the National Key Research Project, the Natural Science Foundation of Guangdong Province and others. He is Associate Editor-in-Chief of Information Sciences, Editor-in-Chief of International Journal of Cognitive Informatics and Natural Intelligence, and editorial board member of Journal of System Simulation and the journal of Jiangxi University of Science and Technology.

**All are welcome!**



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