

# GECCO'15 Welcome to the International Workshop on Evolutionary Rule-Based Machine Learning Workshop (IWERML)

It is our great pleasure to welcome you to the International Workshop on Evolutionary Rule-Based Machine Learning Workshop held in conjunction with GECCO 2015. In previous years, this workshop has been hosted as the International Workshop on Learning Classifiers Systems (IWLCS). It has now been expanded to include all forms of evolutionary rule-based machine learning systems to include a wider set of research topics and participation.

LCSs originated in work by Holland in the 70's, and aimed to create cognitive systems that used evolutionary computation to learn to perform a certain task by interacting with its environment. Since that time, the LCS paradigm has broadened greatly into an algorithmic framework encompassing many representations, rule discovery mechanisms, and credit assignment schemes. LCS applications have varied greatly including problems in data mining, classification, function approximation, reinforcement learning, and on-line control. Classifier systems are an active area of research, fueled by novel reinventions of the LCS architecture such as those introduced in Wilson's accuracy-based XCS.

IWLCS was initiated in 1992 held at the NASA Johnson Space Center in Houston, Texas. Since 1999, the workshop has been held yearly in conjunction with PPSN in 2000 and 2002, and in conjunction with GECCO in 1999, 2001 and from 2003 until the present. This year's workshop will include presentations of peer-reviewed papers accepted by the IWERML program committee, as well as two invited papers from eminent researchers, and a panel discussion to answer questions and outline challenges and future directions for the evolutionary rule-based ML research community.

We would like to thank the authors of submitted papers and presenters as well as the participants for making this workshop a success. We also express our gratitude to the program committee for their dedication.

We hope that you will find this program interesting and thought provoking, and that the workshop will provide you with a valuable opportunity to share ideas with other researchers and practitioners from institutions around the world.



**Karthik Kuber**

*IWERML '15 Chair*  
*Microsoft, USA*

**Masaya Nakata**

*IWERML '15 Chair*  
*The University of Electro-Communications, Japan*

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