

中心主任。

郭雷,中国科学院院士,1961年11月生于山东,1982年毕业于山东大学数学系,1987年在中国科学院系统科学研究所获博士学位,1987-1989年在澳大利亚国立大学从事博士后研究工作,1992年被中国科学院批准为研究员。曾任中国科学院系统科学研究所所长、中国科学院数学与系统科学研究院院长,现任中国科学院国家数学与交叉科学

主要从事系统与控制科学研究。解决了著名自校正调节器收敛性等长期公 开的理论难题;建立了一般非平稳情形下随机系统时变参数估计(或自适应滤波 算法)的数学理论基础;开启了关于反馈机制最大能力与极限的定量研究,发现 并证明了刻画反馈能力的几类临界值和不可能性定理;通过克服公认的"动态连 通性"困难,完整建立了一类最基本的动态大群体系统的同步理论。此外,与合 作者还提出并开展了量子系统中基于测量的反馈控制能力研究;并给出非对称动 态博弈导致合作涌现的一类新机制等。

1998年当选美国电子与电气工程师协会的会士(IEEE Fellow),2001年 当选中国科学院院士,2002年当选第三世界科学院院士,2007年因"在随机系 统的自适应控制与估计理论以及反馈的最大能力认识方面所做出的根本性贡献", 当选国际自动控制联合会的会士(IFAC Fellow),2007年当选瑞典皇家工程科 学院外籍院士。1993年因"解决了最小二乘自校正调节器的收敛性及收敛速度 这一控制理论中长期悬而未决的问题",获国际自动控制联合会世界大会青年作 者奖。此外,他还曾两次获国家自然科学奖,中国科学院自然科学奖,首届国家 杰出青年科学基金,"中国十大杰出青年",中国青年五四奖章等。

现任或曾任国际自动控制联合会 Council Member, 美国 IEEE 控制系统 奖评委会委员,国际自动控制联合会奖励委员会委员,国家科学技术奖励委员会 委员,国务院学位委员会委员,国家自然科学基金委员会委员、中国工业与应用 数学会理事长,中国自动化学会副理事长,中国数学会副理事长,国际自动控制 联合会建模辨识与信号处理委员会主席,以及系统、控制与数学等领域国内外多 份学术杂志编委、副主编或顾问等。 郭雷教授是第六届、七届控制理论专业委员会副主任,第八届控制理论专业委员会委员,现为第九届控制理论专业委员会顾问委员。1994年设立"关肇直奖"以来,一直担任评奖委员会委员,现为第七届评奖委员会主任。他还长期担任中国控制会议顾问委员会委员,曾担任 IEEE-CDC/CCC' 2009 大会共同总主席,为推动控制理论专业委员会及中国控制会议的发展做出了重要贡献。

Professor Lei Guo received his B.S. degree in mathematics from Shandong University in 1982, and Ph.D. degree in control theory from the Chinese Academy of Sciences in 1987. He was a postdoctoral fellow at the Australian National University (1987-1989). Since 1992, he has been a Professor of the Institute of Systems Science at the Chinese Academy of Sciences (CAS), where he was Director of the Institute (1999-2002). He had been the President of the Academy of Mathematics and Systems Science, CAS (2002.12-2012.4), and now is the Director of the National Center for Mathematics and Interdisciplinary Sciences, CAS (2010.12-).

Professor Guo was elected Fellow of the IEEE in 1998, Member of the Chinese Academy of Sciences in 2001, Fellow of the Academy of Sciences for the Developing World (TWAS) in 2002, Foreign Member of the Royal Swedish Academy of Engineering Sciences in 2007, and Fellow of the International Federation of Automatic Control (IFAC) in 2007 "for fundamental contributions to the theory of adaptive control and estimation of stochastic systems, and to the understanding of the maximum capability of feedback". He was also the recipient of the 1993 IFAC World Congress Young Author Prize "for solving a long standing problem in control theory concerning convergence and convergence rate for the least-squares—based self-tuning regulators". He was a plenary speaker at the International Federation of Automatic Control (IFAC) World Congress in 1999, and an Invited speaker at the International Congress of Mathematicians (ICM) in 2002, among others.

He has served as a Council Member of IFAC (2005-2011), Member of IEEE Control Systems Award Committee (2008-2011), Member of the IFAC Award Committee (2005-2008), Associate Editor of SIAM J. Control and Optimization (1991-1993), and Vice-President of the Chinese Mathematical Society. Currently, he serves as a Member of the National Natural Science Foundation of China (2008-), Advisor of the National Basic Research Program of China (2011-), the President of the China Society for Industrial and Applied Mathematics (CSIAM), a Vice-President of the Chinese Association of Automation, and member of editorial boards of a number of academic journals in mathematics, systems and control.

He has worked on problems in adaptive control, system identification, adaptive signal processing, and stochastic systems. His current research interests include the capability of feedback, multi-agent systems, complex adaptive systems, and quantum control systems, among others.

Professor Guo was Vice-chair of 6th, 7th TCCT, member of 8th TCCT, and now is a member of the Consultant Committee, TCCT. He had been member of the Evaluation Committee since the Guan Zhaozhi Award established in 1994, and now is the director. He was General Co-Chair of IEEE-CDC/CCC'2009, and has been an advisor of the Chinese Control Conference for many years. Professor Guo has made significant contributions to the development of both TCCT and the Chinese Control Conference.