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研究领域：	高频电力电子、高频低功率芯片、电力电子在新能源变换中应用技术、电动汽车电力总成				
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个人简介

2002年、2005年分别获南京航空航天大学本科、硕士学位；2009年，获加拿大皇后大学（Queen's University at Kingston, Ontario, nada）博士学位，导师Prof. Yan-Fei Liu (Fellow, IEEE), Prof. P.C. Sen (Fellow IEEE)；南航Power Integration (PI)研究组负 人。目前研究方向为高频电力电子与应用基础研究。

在IEEE电力电子期刊（Trans. on Power Electron., 影响因子6.0）发表SCI论文29篇（第一作者22篇）；SCI单篇最高他引109次，SCI总 引次数665次，H指数15；发表IEEE APEC, ECCE等国际会议论文62篇（第 作者20篇）；论文累计他引1000余次；所提寄生分布参数“CSI 耗模型和通用设计方法”，被同行专家作为“器件高频损耗模型”被他引223次；以第 作者身份撰写英文专著 High Frequency MOSFE ate Drivers: Technologies and Applications（英国工程技术学会IET出版）；在第六届 Advanced Power System Automation and Pro ction 2015 国际会议做分会特邀报告；获授权美国专利1项、中国发明专利10项。

获国家优秀青年科学基金、江苏省杰出青年基金、教育部霍英东青年基金；入选“江苏省333工程”、“江苏省六大人才高峰”、南京市 “321海外领军型科技创新创业人才”；主持国家级项目3项、省部级项目8项、台达基金2项、光宝基金1项，主持军工与企业研发类项目 余项。

荣获美国联合技术公司“容阁”科教奖、江苏省科学技术奖 二等奖 （排名第 ）、 江苏省电工科学技术 等奖、第十八届中国国际高 技术成果交易会“优秀产品”奖；评为2015年江苏省电工技术学会“优秀先进”工作者；

所提电流源驱动与美国IR半导体公司合作产品开发；所提超高频电路拓扑与架构在中国航天科工集团航天五院的某型卫星电源系统、某 超轻陀螺电源系统中得到应用。在美国Linear Technology工作时，提出超高频信号与功率同步传输方法并产品化；与业界知名电源企业 达、光宝、致远电子、金升阳（Mornsun）等建立紧密合作，成功转化多项高频/超高频芯片电源技术。

为IEEE高级会员；担任IEEE Journal of Emerging and Selected Topics of Power Electronics（IEEE JESTPE）副主编；Guest Asso ate Editor for special issue of JESTPE: Resonant and Soft-Switching Techniques with Wide Bandgap Devices in 2018；担任 E Power & Control Core Technologies 委员/ 秘书；IEEE ECCE, APEC分会主席、分组委会委员、IEEE Journal of Emerging and Se ted Topics in Power Electronics，特邀副主编、担任《电源学报》编委、电源学会青年委员会委员；被评为2015、2016《中国电机工 学报》优秀审稿专家。

所负责PI研究组， 包括硕士生12名，博士生2名，本科生6人；硕士毕业生13人，毕业去向包括：28所、55所、国家电网、台达电子、美 国家仪器、美国田纳西大学、美国加州大学圣芭芭拉分校、华为等业内知名企业及高校。欢迎有志于从事电力电子相关事业的同学加入 请与本人直接联系。

获奖

1） 美国联合技术公司“容阁”科教奖，“United Technologies Corporation Rong Hong Endowment” by United Technologies, 19

2） 2017年 江苏省科学技术奖 二等奖 （排名第一），“高效、高可靠性模块化智能集成储能系统关键技术及应用”

3） 第十八届中国国际高新技术成果交易会“优秀产品”奖 （电动汽车电力电子总成）

4） “Certificate for Teaching Assistants: Scholarship”, Program in University Teaching and Learning, Center for Teach g and Learning, Queen's University, 2006.

5） 2016年中国高校电力电子与电力传动学术年会“优秀论文”

6） 南京市第九届自然科学优秀学术论文奖，三等奖，排名第一，2011年

7） 2015年《电机工程学报》优秀审稿人

8） 2016年江苏省电工技术学会先进工作者

9） 2016年度 江苏省电工科学技术一等奖 “规模化高性能储能系统关键技术”

荣誉与称号

1） 2017年 国家优秀青年科学基金

2） 2016年获江苏省杰出青年基金

3） 2016年获教育部霍英东基金

4） 2016年入选“江苏省333工程”

5） 2016年入选“江苏省六大人才高峰”

6） 2015年度《中国电机工程学报》优秀审稿专家

7） 2015年江苏省电工技术学会“优秀工作者”荣誉称号

8） 入选2013年南京市“321海外领军型科技创新创业人才”

学术成果

IEEE Trans on Power Electron. 论文 （SCI一区）

[1] Zhiliang Zhang, Z. W. Xu, K. Xu, X. Ren and Q. Chen, “Stack-capacitor SiC converters for pulse applications,” IEE Trans. Power Electron., accepted

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1） Zhiliang Zhang and Yan-Fei Liu, “Current Source Gate Drivers,” U. S. Patent No. 8, 085, 083

2） Yan-Fei Liu, Zhiliang Zhang and Jizhen Fu, “Current Source Gate Driver with Negative Gate Voltage,” US Patent 20 068683 A1

3） 张之梁，胥鹏程，蔡卫，发明专利，“电流源驱动电路及其自适应控制方法与应用”，授权号 ZL 201110143223X

4） 张之梁，蔡勇勇，发明专利，“基于微变换智能模块的分布式储能系统”，授权号 ZL 2013100005405

5） 桂涵东，张之梁，张玑，“一种优化分布式变换器系统效率的功率分配控制策略”，授权号：ZL 2014101094275

6） 张之梁，蔡卫，“一种超高频隔离推挽变换器”，申请号201310154251.0

7） 张之梁，邹学文，董舟，任小永，余凤兵，“一种超高频隔离谐振同步整流变换器”

8） 董舟，张之梁，邹学文，任小永，余凤兵，“一种可应用于高频场合的氮化镓驱动”

9） 张之梁，周嫦，任小永，余凤兵，“超高频功率变换器的3D集成架构”，公开号104934209A

10） 桂涵东，王栋，顾东杰，张之梁，基于串联电池组的分层式均衡电路系统及混合控制方法，申请号：201610013348.3

11） 顾东杰，张之梁，程祥，王栋，利用车载充电机辨识电池参数的电池荷电状态估计方法，公开号：105068008A

承担项目

主持或参加科研项目及人才基金项目情况

（一）基金项目

1） 国家自然科学基金 优秀青年科学基金，“GaN超高频电力电子系统”，2018/01－2020/12，在研，主持

2） 国家自然科学基金 面上项目，项目主持，“超高频（30 MHz-300 MHz）功率变换与系统集成”，2014/01－2017/12，在研，主持

3） 国家自然科学基金 青年科学基金，51007036，“超高频自适应电流源驱动的研究”，2010/01－2013/12，已结题，评为“优秀”，持

4） 国家自然科学基金 面上项目，“基于恢复效应的分布式微模块自重组电池储能系统与控制”，2016/01－2019/12，在研，主持

5） 教育部霍英东青年教师基金，“基于GaN器件的超高频电力电子系统”，2016/05－2019/05，在研，主持

6） 江苏省杰出青年基金，“GaN超高频电力电子系统”，2016/08－2019/08，在研，主持

7） 江苏省“333高层次人才培养工程”项目，“电动汽车宽禁带器件高功率密度电力电子集成系统”，2017/08-2019/08，主持

8） 江苏省前瞻性联合研究项目，BY2015003-04，“基于SiC IGBT的高性能电力电子变压器系统”，2015/07－2017/06，已结题，主持

9） 江苏省自然科学基金，SBK201123015，“超高频MOSFET数字化自适应混合驱动关键技术的研究”，2011/01－2014/07，已结题，主

10） 教育部留学回国人员科研启动基金，“超高频功率变换系统的研究”，2011/07－2012/07，已结题，主持

11） 工业与信息化部“留学人员科技活动项目择优资助－优秀类”，“基于电流源驱动技术Micro-Inverters光伏并网集成系统研究”011/12－2012/12，已结题，主持

12） 航空科学基金，2010ZC52037，“超高频MOSFET电流源驱动技术及芯片集成的研究”，2010/12－2012/12，已结题，主持

13） 台达电力电子科教发展基金，“超高频（30 MHz-300 MHz）功率变换拓扑、控制与集成”，2013/07－2015/07，在研，主持

14） 台达电力电子科教发展基金，DREG2010008，“超高频低压大电流变换器MOSFET自适应电流源驱动的研究”，2010/07－2012/07，结题，主持

15） 光宝科技电力电子产学研科研合作基金，“基于微变换器的分布式自重组电池储能系统”，2014/03—2017/05，在研，主持

16） 加拿大国家自然基金 基础研究基金 (NSERC, Discovery Grant)，“High Efficiency High Power Density Voltage Regulator Module for Next Generation CPU”，2009/01—2012/12，$145,000加元，已结题，参与（主要参与人）

17） 加拿大国家自然基金 基础创新基金 (NSERC, Idea to Innovation)，“Technology Development for Current Source MOSFET Driver Chip”，2008/01—2009/12，$125,000加元，已结题，参与（主要参与人）

18） 加拿大安大略省产学研预研基金 (CITO，Market Readiness)，“Resonant Gate Drive Circuit for High Efficiency Fast Dynamic Response Computer Power System”，2006/01—2006/12，$49,000加元，已结题，参与（主要参与人）

（二）企业委托项目

1） 北京航天五院控制工程研究所，“高功率密度GaN DC-DC变换器”，2015/01—2016/12，在研，主持

2） 北京航天五院控制工程研究所，“多路输出功率系统建模与可靠性优化测试”，2011/03—2012/05，已结题，主持

3） 北京航天五院控制工程研究所，“高频高效高功率密度陀螺模块电源研究”，2015/12—2016/08，已结题，主持

4） 中国电子科工集团14所，“宽禁带器件的高压雷达电源系统”，2017/01—2017/12，在研，主持

5） 广州金升阳（Mornsun）科技有限公司，“电源模块高频化技术合作开发”，2014/02—2017/02，在研，主持

6） 上能电气股份有限公司，“大功率车载高频双向SiC集成充电系统的研制”，2016/12—2017/12，在研，主持

7） 北京世纪金光半导体有限公司，“SiC功率器件驱动器与智能模块技术开发”，2017/03—2019/12，在研，子课题负责

8） 加拿大安大略省产业联合项目（OCE / Gold Phoenix Market Readiness），“Technologies for High Efficiency Power Supplies for High End Computers”，2008/01—2010/12，已结题，参与（主要参与人）

9） 加拿大安大PARTEQ公司，“Design and Evaluation of Self Driven ZVS Power Converter”，2008/01—2009/12，已结题，参与（主要参与人）

10） 电子工业部第三十八电子研究所，“4kW通信电源”，2001/01—2002/12，已结题，参与（主要参与人）