

Ziliang Luo

E-mail: luoziliang@ufl.edu

Website: <https://kennyluo4.github.io>

EDUCATION

2017 – 2021	Ph.D.	Agronomy	University of Florida
2010 – 2014	B.S.	Plant Science and Technology	Huazhong Agricultural University

RESEARCH/WORK EXPERIENCE

2021 – present, Post Doc Associate, Department of Agronomy, University of Florida.
Single cell transcriptomics and Spatial transcriptomics on peanut nodule symbiosis and sugarcane orange rust. Supervisor: Dr. Jianping Wang

2017 – 2021, Graduate Research Assistant, Department of Agronomy, University of Florida.
Studying the genetic and epigenetic control of peanut (*Arachis hypogaea*) nodulation by sequencing and CRISPR/Cas9. Supervisor: Dr. Jianping Wang

2015 – 2016, Data analyst, Shanghai OE Biotech.
Conduct bioinformatic analysis on microarray and RNA-seq data; Screening candidate genes by survival analysis using TCGA database.

2014 – 2015, Research Assistant, National Key Laboratory of Crop Genetic Improvement.
Genomic analysis and genetic improvement of rapeseed (*Brassica napus*). Supervisor: Dr. Jun Zou

2011 – 2014, Undergraduate volunteer in Dr. Jinling Meng' lab at the National Key Laboratory of Crop Genetic Improvement.
Analysis of intersubgenomic heterosis of the New Type *Brassica napus*; Clubroot Resistance study in *Brassica napus*. Supervisor: Dr. Jinling Meng and Dr. Jun Zou

TEACHING EXPERIENCE

2020 Spring, Teaching Assistant, Plant Chromosomes and Genomics, University of Florida
Giving lectures on Sequencing technology; Grading homework and exam; Holding office hours

2018 – 2021 Summer, Teaching Assistant & Co-instructor, Genetics, University of Florida
Giving lecture on sequencing technology, Quantitative genetics, and Population Genetics;
Grading homework and exam; Holding office hours

2013 Fall, Teaching Assistant, Seed Industrialization and Technology, Huazhong Agricultural University
Class assistance and coordination for off-campus trips

PUBLICATION

ZHAO, Y., FENG, M., PAUDEL, D., ISLAM, T., MOMOTAZ, A., **LUO, Z.**, ZHAO, Z., WEI, N., LI, S. & XIA, Q. 2021. Advances in Genomics Approaches Shed Light on Crop Domestication. *Plants*, 10, 1571.

PENG, Z., CHEN, H., TAN, L., SHU, H., VARSHNEY, R. K., ZHOU, Z., ZHAO, Z., **LUO, Z.**, CHITIKINENI, A. & WANG, L. 2021. Natural polymorphisms in a pair of NSP2 homoeologs can cause loss of nodulation in peanut. *Journal of Experimental Botany*, 72, 1104-1118.

- PENG, Z., PAUDEL, D., WANG, L., **LUO, Z.**, YOU, Q. & WANG, J. 2020. Methods for Target Enrichment Sequencing via Probe Capture in Legumes. *Legume Genomics*. Humana, New York, NY.
- SHU, H., **LUO, Z.**, PENG, Z. & WANG, J. 2020. The application of CRISPR/Cas9 in hairy roots to explore the functions of AhNFR1 and AhNFR5 genes during peanut nodulation. *BMC plant biology*, 20, 1-15.
- LUO, Z.**, CUI, R., CHAVARRO, C., TSENG, Y.-C., ZHOU, H., PENG, Z., CHU, Y., YANG, X., LOPEZ, Y. & TILLMAN, B. 2020. Mapping quantitative trait loci (QTLs) and estimating the epistasis controlling stem rot resistance in cultivated peanut (*Arachis hypogaea*). *Theoretical and Applied Genetics*, 133, 1201-1212.
- YANG, X., **LUO, Z.**, TODD, J., SOOD, S. & WANG, J. 2020. Genome-wide association study of multiple yield traits in a diversity panel of polyploid sugarcane (*Saccharum* spp.). *The Plant Genome*, 13, e20006.
- YOU, Q., SOOD, S., **LUO, Z.**, LIU, H., ISLAM, M. S., ZHANG, M. & WANG, J. 2020. Identifying genomic regions controlling ratoon stunting disease resistance in sugarcane (*Saccharum* spp.) clonal F1 population. *The Crop Journal*.
- WEIJIAN, Z., HUA, C., MENG, Y., JIANPING, W., MANISH, K., PANDEY, CHONG, Z., WEN-CHI, C., LIANGSHENG, Z., XINGTAN, Z. & RONGHUA, T. 2019. The genome of cultivated peanut provides insight into legume karyotypes, polyploid evolution and crop domestication. *Nature Genetics*, 51, 865–876.
- YANG, X., SONG, J., TODD, J., PENG, Z., PAUDEL, D., **LUO, Z.**, MA, X., YOU, Q., HANSON, E. & ZHAO, Z. 2019. Target enrichment sequencing of 307 germplasm accessions identified ancestry of ancient and modern hybrids and signatures of adaptation and selection in sugarcane (*Saccharum* spp.), a ‘sweet’ crop with ‘bitter’ genomes. *Plant biotechnology journal*, 17, 488-498.
- YANG, X., TODD, J., ARUNDALE, R., BINDER, J. B., **LUO, Z.**, ISLAM, M. S., SOOD, S. & WANG, J. 2019. Identifying loci controlling fiber composition in polyploid sugarcane (*Saccharum* spp.) through genome-wide association study. *Industrial Crops and Products*, 130, 598-605.
- YANG, X., SOOD, S., **LUO, Z.**, TODD, J. & WANG, J. 2019. Genome-wide association studies identified resistance loci to orange rust and yellow leaf virus diseases in sugarcane (*Saccharum* spp.). *Phytopathology*, 109, 623-631.
- YOU, Q., YANG, X., PENG, Z., ISLAM, M. S., SOOD, S., **LUO, Z.**, COMSTOCK, J., XU, L. & WANG, J. 2019. Development of an Axiom Sugarcane100K SNP array for genetic map construction and QTL identification. *Theoretical and Applied Genetics*, 132, 2829-2845.
- LUO, Z.**, WANG, M., LONG, Y., HUANG, Y., SHI, L., ZHANG, C., LIU, X., FITT, B. D., XIANG, J. & MASON, A. S. 2017. Incorporating pleiotropic quantitative trait loci in dissection of complex traits: seed yield in rapeseed as an example. *Theoretical and Applied Genetics*, 130, 1569-1585.
- WANG, X., LONG, Y., WANG, N., ZOU, J., DING, G., BROADLEY, M. R., WHITE, P. J., YUAN, P., ZHANG, Q. & **LUO, Z.** 2017. Breeding histories and selection criteria for oilseed rape in Europe and China identified by genome wide pedigree dissection. *Scientific reports*, 7, 1-11.

ZHANG, Y., THOMAS, C. L., XIANG, J., LONG, Y., WANG, X., ZOU, J., **LUO, Z.**, DING, G., CAI, H. & GRAHAM, N. S. 2016. QTL meta-analysis of root traits in *Brassica napus* under contrasting phosphorus supply in two growth systems. *Scientific reports*, 6, 1-12.

ZOU, J., RAMAN, H., GUO, S., HU, D., WEI, Z., **LUO, Z.**, LONG, Y., SHI, W., FU, Z. & DU, D. 2014. Constructing a dense genetic linkage map and mapping QTL for the traits of flower development in *Brassica carinata*. *Theoretical and Applied Genetics*, 127, 1593-1605.

AWARDS and GRANTS

CALS Outstanding Achievement Awards, University of Florida, 2020

3rd place in Agronomy Graduate Student Association Awards, Agronomy Annual Symposium, 2020

Grinter Fellowship, University of Florida, 2017-2019

Merit Student Award, Huazhong Agricultural University, 2014

Academic Progress Award, Huazhong Agricultural University, 2012

Recipient of Students Research Funding, Huazhong Agricultural University, 2011-2012, project: Transferring clubroot resistance from radish to oilseed rape using new-type *Brassica napus*

LEADERSHIPS & ACTIVITIES

Reviewer for the *Frontiers in Plant Science* journal: 2021-present

Reviewer board for the *Plants* journal: 2020-present

Membership in American Society of Plant Biologists: 2020-present

Volunteer for Westwood Middle School: Science Fair Judge & Holiday events: 2019-2020

Volunteer for Keep Alachua County Beautiful: 2019

Membership in World Wildlife Fund: 2019-present

Membership in International Society for Computational Biology: 2018-present

Officer of Agronomy Graduate Student Association: 2018-2019

Volunteer of the 19th Crucifer Genetics Workshop: 03/2014

Founder of Wuhan's first American football team: 2013

Volunteer of the 5th International Symposium on Persimmon: 10/2012

Vice president of Sports Department in Students Union: 2010-2012

Executive staff of university's environmental club "Green Association": 2010-2011

CERTIFICATES

Summer Institute in Statistical Genetics: Introduction to Genetics and Genomics; Integrative Genomics and Pathway & Network Analysis for Omics Data, University of Washington, 2019

Python for Genomic Data Science, Coursera, 2018

Biology Meets Programming: Bioinformatics for Beginners, Coursera, 2018