李林源 – 个人简历

基本信息

姓　　名：	李林源	性　　别：	男	出生年月：	1992年12月	
籍　　贯：	河北	民　　族：	汉	政治面貌：	九三学社社员	
职　　称：	讲师	研究方向：	植被遥感	联系电话：	010-62338133	
电子邮箱：	lilinyuan@bjfu.edu.cn		个人网站：	http://www.rs-lilinyuan.com/		

当前研究兴趣

无人机近地面遥感，多角度遥感，植被结构参数估算与反演，辐射传输建模，森林扰动遥感监测

工作经历

2020.07 – 至今	北京林业大学，林学院，讲师

教育经历

2016.09 – 2020.06	北京师范大学，地理科学学部，地图学与地理信息系统，博士 导师：阎广建 教授；　穆西晗 副教授
2017.11 – 2019.12	法国国家农业研究院(INRA)，EMMAH实验室，定量遥感，联合培养博士， 导师：Frédéric BARET 高级研究员
2014.09 – 2016.06	北京师范大学，地理与遥感科学学院，地图学与地理信息系统，硕士 导师：穆西晗 副教授
2010.09 – 2014.07	长安大学，地质工程与测绘学院，遥感科学与技术，学士

学术论文（5篇代表作）

◇ **Li, L.***, Mu, X., Jiang, H., Chianucci, F., Hu, R., Song, W., Qi, J., Liu, S., Zhou, J., Chen, L., Huang, H., Yan, G., **2023**. Review of ground and aerial methods for vegetation cover fraction (fCover) and related quantities estimation: definitions, advances, challenges, and future perspectives. ISPRS J. Photogramm. Remote Sens.　　　　　　　　　　　　　　　　　　　　　　　　　　　　[一区 **TOP**, SCI]

◇ **Li, L.**, Mu, X.*, Qi, J., Pisek, J., Roosjen, P., Yan, G., Huang, H., Liu, S., Baret, F., **2021**. Characterizing soil background BRDF in open forests using UAV-based multi-angular images. *ISPRS J. Photogramm. Remote Sens*.　　　　　　　　　　　　　　　　[一区 **TOP**, SCI]

◇ **Li, L.**, Mu, X.*, Soma, M., Wan, P., Qi, J., Hu, R., Tong, Y., Zhang, W., Yan, G., **2020**. An iterative-mode scan design of terrestrial laser scanning in forests for minimising occlusion effect. *IEEE Trans. Geosci. Remote Sens.*　　　　　　　　　　　　　　　　　　　　　　　[一区 **TOP**, SCI]

◇ Yan, G., **Li, L.***, Coy, A., Mu, X., Chen, S., Xie, D., Zhang, W., Zhou, H., **2019**. Improving the estimation of fractional vegetation cover from UAV RGB imagery by colour unmixing. *ISPRS Journal of Photogrammetry and Remote Sensing*.　　　　　　　　　　　　　　　[一区 **TOP**, SCI]

◇ **Li, L.**, Mu, X.*, Macfarlane, C., Song, W., Chen, J., Yan, K., Yan, G., **2018**. A half-Gaussian fitting method for estimating fractional vegetation cover of corn crops using unmanned aerial vehicle images. *Agricultural and Forest Meteorology*.　　　　　　　　　　　　[一区 **TOP**, SCI]

目前在研项目

❖ 基于无人机遥感的单木尺度叶面积指数与叶绿素含量反演研究 (No. 4210010195)，2022-2024，基金委青年项目，30万元，主持，在研.

❖ 基于无人机影像与点云融合数据的森林冠层覆盖度估算 (No. 2020M680402)，2020-2022，博后面上项目，8 万元，主持，在研.

❖ 基于无人机数据自监督学习的复杂林地冠层覆盖度估算 (No. OFSLRSS202113)，2021-2023，重点实验室开放课题，6万元，主持，在研.

CURRICULUM VITAE

Linyuan LI

Assistant professor

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Personal website: http://www.rs-lilinyuan.com/

Born Dec 1992, Cangzhou, China.

Research Interests

Close-range remote sensing, plant trait retrieval, radiative transfer modelling, image and LiDAR processing

Employment

2020.07 – now   Assistant professor at Beijing Forestry University

Education

2016.09 – 2020.06	Ph.D at Faculty of Geography, Beijing Normal University, Beijing, China
	Supervisor: Prof. Guangjian YAN, Prof. Xihan MU
2017.11 – 2019.12	Joint Ph.D at EMMAH, INRA, Avignon, France
	Supervisor: Prof. Frédéric BARET
2014.09 – 2020.06	Master at Beijing Normal University, Beijing, China
	Supervisor: Prof. Xihan MU
2010.09 – 2014.07	Bachelor at Chang'an University, Xi'an, China

Synthesis

Linyuan LI received a PhD degree in 2020 on the UAV close-range remote sensing of vegetation optical and biophysical characteristics. Until now, he has about 10-year experience on UAV quantitative remote sensing focusing on biophysical variables (fCover, LAI, LCC) and radiometric properties (reflectance, BRDF) with both imagery and LiDAR data. He developed a series of "cover" attribute estimation algorithms suitable for crop, forest and understory grass, which has been applied in many fields, such as plant phenotyping, forest inventory and ecological modelling. He is still deeply involved in the development of radiative transfer modelling in the solar domain. His recent emphasis is on the plant-level trait retrieval using 3D model.

Selected publications

✧ **Li, L.***, Mu, X., Jiang, H., Chianucci, F., Hu, R., Song, W., Qi, J., Liu, S., Zhou, J., Chen, L., Huang, H., Yan, G., **2023**. Review of ground and aerial methods for vegetation cover fraction (fCover) and related quantities estimation: definitions, advances, challenges, and future perspectives. **ISPRS J. Photogramm. Remote Sens.**

✧ **Li, L.**, Mu, X.*, Qi, J., Pisek, J., Roosjen, P., Yan, G., Huang, H., Liu, S., Baret, F., **2021**. Characterizing soil background BRDF in open forests using UAV-based multi-angular images. ***ISPRS J. Photogramm. Remote Sens***.

✧ **Li, L.**, Mu, X.*, Soma, M., Wan, P., Qi, J., Hu, R., Tong, Y., Zhang, W., Yan, G., **2020**. An iterative-mode scan design of terrestrial laser scanning in forests for minimising occlusion effect. ***IEEE Trans. Geosci. Remote Sens.***

✧ Yan, G., **Li, L.***, Coy, A., Mu, X., Chen, S., Xie, D., Zhang, W., Zhou, H., **2019**. Improving the estimation of fractional vegetation cover from UAV RGB imagery by colour unmixing. ***ISPRS Journal of Photogrammetry and Remote Sensing***.

✧ **Li, L.**, Mu, X.*, Macfarlane, C., Song, W., Chen, J., Yan, K., Yan, G., **2018**. A half-Gaussian fitting method for estimating fractional vegetation cover of corn crops using unmanned aerial vehicle images. ***Agricultural and Forest Meteorology***.

Projects funded

✧ Retrieving individual-level leaf area index and leaf chlorophyll content with UAV remotely sensed data, No. 4210010195, 2022-2024, **NSFC**

✧ Ultra-high-resolution canopy mapping by a self-supervised CNN using UAV imagery and photogrammetric point cloud data, No. 2020M680402, 2020-2022, **CPSF**