

## Marc JAEGER

### Professional Contact

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<http://agents.cirad.fr/index.php/Marc+Jaeger>  
French citizen. Born September 7th, 1962.



### Current position

Senior Researcher at CIRAD AMAP Unit, Project [GreenLab AMAP](#) Animator, [I2P](#) (Imagery for Plants and Landscapes) team

### Main research and development topics

#### Computer graphics (Natural Phenomena).

- Level of Detail, level of vision BREP geometrical models (ramified objects and spare objects).
- Fast rendering of natural complex scenes.
- Landscape simulations (water cycle and plant functional simulations).
- Volume rendering and reconstruction. Solid characterisation, statistical analysis (past activities).

#### Applications (Software developments in the frame of GreenLab, Digiplate and Amap projects)

- Dissemination on Plant growth models (animation, elearning, ...)
- Simulated Plants, Stand, crops, landscape simulation and visualisation
- Rendering and natural phenomena effects on landscape scenes (shadows, fog, snow, ...)
- 3D image reconstruction and image analysis of vegetal tissues (roots) from microscopic slices.
- Landscape evolution simulation, based on vegetation growth and water cycle simulation.

### IEEE member since 2000

### Latest Publications (2016->2020)

#### Journals

- **Letort, V., Sabatier, S., Okomas, M.P., Jaeger, M., de Reffye, P., 2020.** The internal trophic pressure, a regulator of plant development? Insights from a stochastic Functional-Structural Plant growth Model applied to Coffea trees. *Annals of Botany*, 2020, Accepted
- **Guo, J.-W., Xu, S.-B., Yan, D.-M., Cheng, Z.-G., Jaeger, M., X. Zhang, X.-P., 2020.** Realistic Procedural Plant Modeling from Multiple View Images. *IEEE Transactions on Visualization and Computer Graphics*, Institute of Electrical and Electronics Engineers, 2020, 26 (2), 1372-1384. ([10.1109/TVCG.2018.2869784](https://doi.org/10.1109/TVCG.2018.2869784))
- **Kang, M.-G., Hua, J., Wang, X.-J., de Reffye, P., Jaeger, M., Akkafou, S., 2018.** Estimating Sink Parameters of Stochastic Functional-Structural Plant Models Using Organic Series-Continuous and Rhythmic Development. *Frontiers in Plant Science*, Frontiers, 2018, 9 (1688), ([10.3389/fpls.2018.01688](https://doi.org/10.3389/fpls.2018.01688))
- **Tondjo, K., Brancheriau, L., Sabatier, S.-A., Kokutse, A. D., Kokou, K., Jaeger, M., de Reffye, P., Fourcaud, T., 2018.** Stochastic modelling of tree architecture and biomass allocation: application to teak (*Tectona grandis* L. f.), a tree species with polycyclic growth and leaf neoformation. *Annals of Botany*, 121 (5): 1397-1410.

- **Zhang, Y. X., Bao, G., Meng, W., Jaeger, M., Li, H., Deussen, O., Chen, B., 2017.** Tree branch level of detail models for forest navigation. *Computer Graphics Forum*, **36** (8): 402-417.

## Books

- **de Reffye, P., Jaeger, M., Barthélémy, D., Houllier, F., 2018.** Architecture des plantes et production vegetale. Les apports de la modélisation mathématique. Versailles: Quae: 357 p.
- **de Reffye, P., Jaeger, M., Barthélémy, D., Houllier, F., 2016.** Architecture et croissance des plantes. Modélisation et applications. Paris: Quae (epub).

## Book Chapters

- **de Reffye, P., Jaeger, M., Mathieu, A., 2018.** Applications de la modélisation de l'architecture des plantes. In Barthélémy, D., de Reffye, P., Houllier, F., Jaeger, M. (Eds) *Architecture des plantes et production vegetale. Les apports de la modélisation mathématique*. Versailles : Quae, 293-328 p. (Synthèses).
- **Jaeger, M., Subsol, G., 2016.** Modèles pour la représentation et la visualisation des plantes et des paysages. In Barthélémy, D., de Reffye, P., Houllier, F., Jaeger, M. (Eds) *Epub. Architecture et croissance des plantes. Modélisation et applications*. Versailles : Quae (Synthèses).
- **de Reffye, P., Jaeger, M., 2016.** Applications diverses de l'architecture des plantes. In Barthélémy, D., de Reffye, P., Houllier, F., Jaeger, M. (Eds) *Epub. Architecture et croissance des plantes. Modélisation et applications*. Versailles : Quae (Synthèses).
- **Jaeger, M., 2016.** Calibration, implémentation et mise en œuvre de GreenLab. In Barthélémy, D., de Reffye, P., Houllier, F., Jaeger, M. (Eds) *Epub. Architecture et croissance des plantes. Modélisation et applications*. Versailles : Quae(Synthèses).

## Conferences (international with proceedings)

- **Ribeyre, F., Jaeger, M., Ribeyre, A., de Reffye, P., 2018.** StemGL, a FSPM tool dedicated to crop plants model calibration in the single stem case. *IEEE Proceedings of 6<sup>th</sup> International Symposium on Plant Growth Modeling, Simulation, Visualization and Applications (PMA'18)*, Nov 2018, Hefei, China. pp. 33-38, <10.1109/PMA.2018.8611601>
- **De Reffye, P., Jaeger, M., Sabatier, S., Letort, V., 2018.** Modelling the interaction between functioning and organogenesis in a stochastic plant growth model: Methodology for parameter estimation and illustration. *IEEE Proceedings of 6<sup>th</sup> International Symposium on Plant Growth Modeling, Simulation, Visualization and Applications (PMA'18)*, Nov 2018, Hefei, China. pp. 102-110, <10.1109/PMA.2018.8611628>
- **Jaeger, M., Sabatier, S., Borianne, P., de Reffye, P., Letort, V., Gang, Y., Zhang, X.-P. Kang, M.-Z., 2018.** Data visualization for vegetal landscapes: Building 3D representations of organ biomass compartments. How plant production could constrain 3D lollipop-like representations. *IEEE Proceedings of PMA '18* Nov 2018, Hefei, China. pp. 85-93
- **Jaeger, M., de Reffye, P., Sabatier, S.-A., Letort, V., Heuvelink, E., Caraglio, Y., Motisi, N., Krit, H., Lafond, M.-H., Kang, M. Z., Zhang, B. G., 2016.** Plant growth architecture and production dynamics: A set of e-learning resources. Kang, M-ZEvers, J. (Ed). *Proceedings of 2016 IEEE International Conference on Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA)*. Qingdao, China: 83-89.2016 IEEE International Conference on Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA), 07-11/11/2016, Qingdao, Chine.
- **Kang, M. Z., de Reffye, P., Hua, J., Jaeger, M., Hu, B. G., 2016.** Data assimilation and parameter estimation on plant growth models with stochastic development. Kang, M-ZEvers, J. (Ed). *Proceedings of 2016 IEEE International Conference on Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA)*. Qingdao, China: 98-105.2016 IEEE International Conference on

Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA), 07-11/11/2016, Qingdao, Chine.

- **Kang, M., Hua, J., de Reffye, P., Jaeger, M., 2016.** Parameter identification of plant growth models with stochastic development. Kang, M-ZEvers, J. (Ed). *Proceedings of 2016 IEEE International Conference on Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA)*. Qingdao, China: 98-105.2016 IEEE International Conference on Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA), 07-11/11/2016, Qingdao, Chine.

### Communications - Invited Talks.

- **Jaeger, M., 2018.** Deep Learning imaging applications related to the vegetation (flora, Agronomy, Ecology) at AMAP Unit. Talk at *China Agricultural University, Department of Environmental and Soil Sciences (CAU)*, 2018, November 11th, Beijing, China
- **Jaeger, M., 2018.** Some recent works and projects at CIRAD-AMAP unit concerning imaging applications related to the vegetation (flora, Agronomy, Ecology). Invited talk at *Institute of Automation of Chinese Academy of Sciences (CASIA)*, 2018, November 9th, Beijing, China
- **Jaeger, M., 2018.** GLUED e-learning resources presentation. Invited talk at *China Agricultural University, Department of Environmental and Soil Sciences (CAU)*, 2018, November 11th, Beijing, China
- **Jaeger, M., 2018.** StemGL presentation: a FSPM tool dedicated to crop plants model calibration in the single stem case. Invited talk at *China Agricultural University, Department of Environmental and Soil Sciences (CAU)*, 2018, November 11th, Beijing, China
- **de Reffye, P., Jaeger, M., 2016.** Ordre et désordre dans l'architecture des plantes. *Journées nationales 2016 de l'APMED (Association des Professeurs de Mathématiques de l'Enseignement Public)*. 23 Novembre 2016, Lyon, France.
- **Jaeger, M., 2016.** GL\_UVED: An example set of e-learning resources on Plant growth architecture and production dynamics. *Conference of the Lecture Note series*, Institute of Automation of Chinese Academy of Sciences, 2016, November 14, Beijing, China.
- **Jaeger, M., 2016.** Forme - Structure modèle en équations. le cas de l'architecture des plantes. *INTERSCULPT - Modèles numériques dans l'art et la nature*. S. I. : INTERSCULPT - Modèles numériques dans l'art et la nature, 13 Octobre 2016, Verdun, France. <https://www.dailymotion.com/video/x5004t7>
- **Jaeger, M., 2016.** Imaging plant and landscape. CIRAD AMAP I2P team's topic presentation. *Focus on plant communities' visualisation*. Beijing Forestry University, China : Focus on plant communities visualisation, 15/10/2016, Beijing, China.

### Others. Posters

- **Viennois, G., Borne, F., Jaeger, M., Borianne, P., 2018.** Quelle vérité terrain pour les réseaux de neurones en imagerie drone ? Application à la détection de palmier Raphia en forêts au Gabon. *Conférence Française de Photogrammétrie et de Télédétection (CFPT) 2018*. Marne-la Vallée, France : Conférence Française de Photogrammétrie et de Télédétection (CFPT) 2018, 25-28/06/2018, Marne-la Vallée, France.
- **Jaeger, M., Taugourdeau, O., de Reffye, P., 2016.** Efficient structure development operators, application to mature tree structure simulations. . *FSPMA 2016 -Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications* . Qingdao, Chine : FSPMA 2016 -Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications , 07-11/11/2016, Qingdao, Chine.

### Others. Reports

- **Jaeger, M., de Reffye, P., 2019.** Plant growth modelling and simulation – a complex dynamic system. *Les Dossiers d'Agropolis International. COMPLEX SYSTEMS. From biology to landscapes*. 23, January 2019. p.31
- **Jaeger, M., de Reffye, P., 2018.** Modélisation et simulation de la croissance des plantes : un système dynamique et complexe. *Les Dossiers d'Agropolis International. Systèmes complexes de la biologie aux territoires*. 23, June 2018. p.31
- **Jaeger, M., 2018.** E-LEARNING ET MODELISATION DES PLANTES. Rapport pour la Direction d'unité. Etude 2016-2018. Septembre 2018. 62 p.

### Web sites: Conception and development

- GreenLab web site: <http://greenlab.cirad.fr/>
- Greenlab Online Courses : <http://greenlab.cirad.fr/GLUVED/>
- Greenlab simple implementation (StemGL) : <http://greenlab.cirad.fr/StemGL/>

## **Education**

- Dec. 2010: Habilitation à diriger des Recherches (Computer Sciences). University Blaise Pascal, Clermont-Ferrand II.
- Dec. 1987: PhD thesis in Computer Science, University of Strasbourg.
- Sep. 1985: D.E.A. (master degree) in Computer Science, University of Strasbourg.
- June 1984: Master in Computer Sciences applied to Management (MIAGE, MST), Uni. of Mulhouse.
- June 1980: Baccalauréat C (Mathematics), Lycée Bartholdi, Colmar.

## **Past positions**

- Nov. 2006 - Nov. 2008: Engineer Specialist at INRIA Saclay, EPI DigiPlante Team (INRIA / Ecole Centrale Paris CIRAD).
- July 2006 - Oct. 2006: Senior Researcher at CIRAD-AMAP (UMR BBAP, Cirad/Inra/Cnrs/Montpellier Univ. II/IRD)
- Jan. 2002 - Jan. 2006: French Director of LIAMA (Beijing - PR CHINA).
- Jan. 2002 - June 2006: Guest Professor of Chinese Academy of Sciences. Beijing Information Sciences and Technology Graduate School (Master level).
- Aug. 2001 - July 2006: Senior Researcher in LIAMA (Beijing - PR CHINA).
- June 1999 - July 2001: Scientific Direction of CIRAD. Research co-ordinator in charge of Applied Mathematics and Computer sciences.
- Jan. 1991 - June 1999: CIRAD/AMAP: Head of the MEB-C2000 Team (Volume imaging: with medical, forestry, agro-production applications).
- Jan. 1989 - Dec 1990: Research Engineer at CIRAD-AMAP. Plants simulation and landscape design and visualisation.
- Jan. 1988 - Dec 1988: National service. EELAT helicopter school. Analysis/Development of E-learning and 3D simulators systems.
- Feb. 1984 - Dec 1987: Research fellowship at CIRAD (plant growth simulation and visualisation, Master/PhD).
- Jan. 1983 - Sep. 1983: IS in Management: Analyse, conception and development Beghin Say SA. (extended MST Master internship)

## **Teaching activities.**

- 2002 -> 2006. Computer Graphics and applications in life sciences. Master Course. CAS. IST Graduate School. Beijing. Contents: Elements of computer graphics: 28 hours (12 hours practice); Natural phenomena. 6 hours (3 hours practice); Volume imaging. 6 hours (3 hours practice).
- 2003, 2004. Basic Elements of Computer Graphics. Natural Phenomena, virtual plants and Landscapes. Ecole Centrale de Paris, 6 hours.
- 2001. Symposium Workshop ("Ecole chercheur INRA-CIRAD"). An introduction to Volumic imaging and its applications. June 2001, 25-28th. Montpellier.
- 1997->2001 Computer graphics. Basic elements of C.G. 40 hours course. EMA/ EERIE Institute (Ecole pour les Etudes et la Recherche en Informatique et Electronique de Nîmes, Ecole des Mines d'Alès). CG Modelling, Visualisation, Rendering, Animation.
- 1998, 1999, 2000. Conferences on "Modelling and visualisation of Natural Phenomena" at LIGIM (Laboratoire d'Informatique Graphique et d'Imagerie Numérique de l'Université Claude Bernard à Lyon), LIRMM (Laboratoire d'Informatique de Robotique et de Micro-électronique de Montpellier, Université des Sciences et Techniques du Languedoc).

- 1995,1999. Conferences on Medical Imaging and its applications for Biometry, geometrical modelling, Computer prosthesis design at Faculty of Medecine of Montpellier and Faculty of Dentistry of Toulouse

### **Ph.D. Students**

- Guilhem Brunel, University of Montpellier 2, Automated Cell file detection in wood cross section images. 2011-2014;
- HongJun LI, Beijing Forestry University and CASIA, 3D tree geometrical reconstructions from terrestrial laser scans. 2008-2012.
- Vincent le Chevalier, Ecole Centrale de Paris, Functional Landscapes (Plant and crops models in interaction with water cycle models). 2006-2010;
- Heaven WU, China Agricultural University (CAU), 3D reconstruction of wheat roots from microscopic slices, 2005-2009.
- QingQiong Deng, CASIA, Virtual plant foliage LOD and multiresolution models, 2004-2008.
- Chao Zhu, CASIA, Defining tree crown geometry from point clouds, 2006-2010;
- Mei Xing, CASIA, Landscape visualisation and rendering, 2004-2006;
- Teng Jun, CASIA, GPU based Multilevel Plants and tree visualisation, 2002-2007.
- ZhiFeng Cai, CASIA, Image Registration with non-linear elastic models, 2000-2004.
- Stéphane Chemouny, Univ. Montpellier II, 3D non-linear image filtering, 1997-2001.
- Frédéric Banégas, Ecole des Mines de St Etienne, 3D geometric solid characterisation, 1997-2000.

### **Scientific animation**

- 2012, Research, collectivities and industry exchanges on virtual reality applications for environment and sustainable planning, 40 participants, Montpellier May 2012
- 2005, GreenLab 2nd Workshop, 55 participants, Beijing June 2005
- 2004. GreenLab First Strategy Workshop, Beijing, 45 participants, October 2004
- 2003. Main board and Organiser of PMA03, The 2003' International symposium on plant growth models and their applications. Beijing, October 2003.
- 2000-2001: Organiser of several scientific animations on: freeware, plant geometry, image processing, stem modeling, models in decision support tools (agronomy), software engineering.
- Organizer of the Volume Imaging School. June 25-28th, 2001, Montpellier.

### **International events organisation**

- 2010. Main board and Coorganiser of LandMod2010, the 2010 International Conference on Integrative Landscape Modelling website. Montpellier SupAgro, February 3-5, 2010
- 2009. Main board and Organiser of PMA09, The 2009' International symposium on plant growth models and their applications. Beijing.
- 2005. Organiser of STIC-ASIA 05 workshop October 24-26<sup>th</sup> 2005 in Beijing.
- 2003. Main board and Organiser of PMA03, The 2003' International symposium on plant growth models and their applications. Beijing.

### **Committees, Event boards, positions**

- Reviewer (2006->2019) for Annals of Botany, Journal of Computer Sciences and Techniques, Journal of Virtual Reality, Transaction on Graphics...

- Reviewer for Eurographics: EG02,EG03,EG05,EG06,EG08 for Siggraph: SIG06,SIG09 for CARI (2000,2004,2008,2010,2014)...
- Event Scientific Boards: PMA2018, VRCAI2016,FSPMA2016,VRCAI2015, VRCAI2013, PMA'12, Regio Resources 2011, Edutainment 2010, LandMod2010, Edutainment 2009, PMA09, Edutainment 2008, PMA06, PMA03
- Participation to LIAMA's Scientific Committee (2000 / 2001, acting F. Houllier, representing CIRAD)
- Expert Member of C2I2MEAD "Environment and sustainable development" certificate definition (MEN-MESR SG/STSI)
- Board member of the European Land-Use Institute in charge of technology and products
- Registered at Eu-Cordis expert database (IST priority, and Co-operation with Asia)
- Member of the Sino-French committee for the Sino-French Centre of Sciences and Technology (February-July 2001)
- IADIS (International Association for Development of the Information Society) member since 2010
- IEEE member since 2000

### **Research project co-ordination or major contribution**

- DigitVeg Project. Co-ordinator. 2019-2020. Digital vegetation mock-ups. Supported by labex Cemeb and Cirad.
- Labex Agro 1600-027 Project. Co-ordinator. 2017. Architecture et croissance des plantes. Modélisation et applications.(Book and e-book edition)
- UVED GreenLab Project. Co-ordinator. 2013->. Understanding, modeling and simulating plant dynamics. (Numerical teaching resources for)
- Agropolis Fondation RTRA (Computational Plants and eco-systems) 0902-016 Project. Co-ordinator. 2009->2012. VLS-LRC Virtual Landscapes in Languedoc Roussillon and Catalogna. Thematic regional network dedicated to reinforce collaborative projects on virtual landscapes and eco-systems 3D visualisations.
- Agropolis Fondation RTRA (Computational Plants and eco-systems) 0902-012 Project. Co-ordinator. 2009->2011. PMA09 third International Symposium on Plant Growth Modeling, Simulation and Applications.
- Agropolis Fondation RTRA (Computational Plants and eco-systems) 0803-021 Project. 2008->2010. Co-ordinator. Integrative ecosystems & landscape modelling Model level integration for understanding and managing human influenced ecosystems at the landscape scale.
- ANR/Bioenergies/Emerge, 2009->2013. Co-ordinator for Cirad Partner. Task 3. Volume imaging (CT scans) and 3D reconstructions geometry analysis.
- ANR/MMSA/Project Natsim 2006-> 2008. Co-ordinator of work-package 3. Virtual landscape rendering.
- REVPE. Accepted Marie Curie OIF of Philippe Decaudin (INRIA to LIAMA, planned starting spring 2006). First Marie Curie OIF from EU to China.
- LIAMA 2001-08 Project. Advanced medical imaging methods for Hominid Morphology studies. French project co-ordinator. 2002-2003.
- Co-ordinator of the CIRAD Research Initiative Action "Methods and Software Tools for Wood Resource Evaluation". 1999-2000.
- National Project SICRODEF (Ademe funded, 1997-1999). 3D stem geometrical modelling, sawing simulation, adaptive 3D meshes for mechanics.
- EU Fair CT 1915 project STUD (FP4, 1995-1999). Contributor in Work-package 5. Resource evaluation software development and 3D image processing research developments.
- EU Fair PL project OAKKEY (FP4, 1994-1998). Co-ordinator of Work-package 4. 3D simulation and software developments.
- Main contributor in several local projects with Montpellier Hospitals (1993-1998): Embryology, Liver oncology, Wrist and Foot biometry.
- Main contributor in several local projects with University Paul Sabatier of Toulouse and Clinic Pasteur of Toulouse (1994-1998): 3D Cephalometry. Server application is installed in Toulouse (CNUT, 1996) with clients in Faculty of Dentistry and Odontology.

### **Running projects:**

- DigitVeg Project (Coordinator).
- GuayulSim project (supported by Labex Agro)
- Sino-French GreenLab project network (PI, co-director).

## **Products. Transfer to Industry / Research and products for Industry**

### **Transfer to Industry**

- 2003-2004. Algorithms and applications (volume image processing and rendering). Supports to Technological transfer to Trigem-Ortho. Start-up in Cap Alpha, Montpellier
- 2003-2004. Algorithms and applications (volume image processing and rendering). Supports to Technological transfer to IntraSense. Start-up in Cap Omega, Montpellier
- 1984-1990. AMAP. Plant generator and Landscape renderer. Basis of the Data structure and algorithms of the current commercial AMAP Range tools (Genesys(TM) and Orchestra(TM) ). Technological transfer to Bionatics SA. <http://www.bionatics.com>

### **R&D projects in relation with industries**

- TALVEG-2 (2016, 2018). Supports in imagery in the frame of revegetalization studies and projects. Valorhiz, Montpellier
- EDF-R&D (2017). Bibliography and opportunity study (imagery)
- EDF-R&D (2016). Preliminary study (imagery)
- TAFER (2013, 2016). Supports in imagery for roadsides and railway banks plant communities 3D visualizations. with the support of SYSTRA (Paris) and Labex Agro, Montpellier
- Lamalou (1997-1998). Design, definition and prototype realisation of a 3D prosthesis design tool. STER Clinic and AFSTR Association, Lamalou les Bains.
- Echo 3D (1996-1998). Research and development. Conception, design, realisation, documentation. 4D Doppler US reconstruction and visualisation software tool to be integrated in a PACS. Medasys Digital Systems, Gif sur Yvette.
- Carpo (1993-1997). Research and development. Fresh Mushroom X ray internal structure analyser. Conception, design, realisation and implementation of a complete solution (X-Ray devices, protocols, software, and teaching): X-ray image acquisition, film development and digitalization, image processing & registration, databases and embedded queries related to culture conditions, statistical analysis, and data management. France Champignon S.A., Beaufort en Vallée.

### **Software registration.**

- QIZPP (Qt Image Zbuffer Post Processing). Inter Deposit Digital Number (IDDN) registration at Agence pour la Protection des Programmes (APP). In progress Owner: CIRAD (member 88.75.673). June 2012.
- GLOUPS (Generalized Operator for an Universal Plant Simulator). Inter Deposit Digital Number (IDDN) registration at Agence pour la Protection des Programmes (APP) under number no: IDDN.FR.001.210033.000.R.P.2011.000.30010. Owner: CIRAD (member 88.75.673). Logibox : 66948, May 27th, 2011.

## **MOU-Agreements**

- 2005. Research co-operation MOU: Ecole Centrale de Paris - LIAMA
- 2005. Research co-operation MOU: INPT-LIAMA
- 2003. Research co-operation - industry agreement: Agreement France Telecom R&D - LIAMA
- 2003-2006: Negotiations, contracts/agreements between LIAMA and local partners: Tsinghua Press, French Embassy, Hotels, Air France

## **CDROM, Communication and WebSites**

- CDROM. "Initiation à l'imagerie volumique". Courses, References, Tools. 2001.
- CDROM. "Computer Graphics". Courses, Tools and References 2003-2006 (annual update).
- Liama's Short news (200-2003). Designer and main redactor. [http://pma.cirad.fr/LIAMA\\_COM/](http://pma.cirad.fr/LIAMA_COM/)

Web sites : Conception and development

GreenLab web site: <http://greenlab.cirad.fr/>

GreenLab Online Course site: <http://greenlab.cirad.fr/GLUVED>

GreenLab StemGL Tool: <http://greenlab.cirad.fr/StemGL>

LandMod2010 Mirror site (with proceedings) <http://greenlab.cirad.fr/LandMod2010/>

VLS\_LRC project web site: [http://pma.cirad.fr/VLS\\_LRC](http://pma.cirad.fr/VLS_LRC)

PMA09 International web site: <http://pma.cirad.fr>

Personal page: <http://agents.cirad.fr/index.php/Marc+Jaeger>

My "Best images" professional web site: <http://marcjaeg.free.fr> or [http://pma.cirad.fr/MJ\\_PICS/](http://pma.cirad.fr/MJ_PICS/)

Liama's web site (Phase 3, Archive): [http://pma.cirad.fr/LIAMA\\_V3](http://pma.cirad.fr/LIAMA_V3)

Liama's Documents(2001->2006, Archive): [http://pma.cirad.fr/LIAMA\\_COM](http://pma.cirad.fr/LIAMA_COM)

PMA'03 International web site (Archive): <http://pma.cirad.fr/PMA03>

CIRAD/Scientific delegation Applied Mathematics and Computer SCiences -MIA (Archive in French):

[http://pma.cirad.fr/DS\\_MIA/](http://pma.cirad.fr/DS_MIA/)

EEC project STUD site (Archive): [http://pma.cirad.fr/FP5\\_STUD/](http://pma.cirad.fr/FP5_STUD/)

CIRAD/AMAP MEB TEAM site (Archive in French): [http://pma.cirad.fr/TEAM\\_MEB/](http://pma.cirad.fr/TEAM_MEB/)

## **Languages:**

- French (native)
- English,
- German (spoken),
- Chinese (very basic notions, spoken)

## **References (List updated on November 26<sup>th</sup>, 2019)**

### **Conferences (international with proceedings)**

- Ribeyre, F., Jaeger, M., Ribeyre, A., de Reffye, P., 2018. StemGL, a FSPM tool dedicated to crop plants model calibration in the single stem case. IEEE Proceedings of 6th International Symposium on Plant Growth Modeling, Simulation, Visualization and Applications (PMA'18), Nov 2018, Hefei, China. pp. 33-38, (10.1109/PMA.2018.8611601)
- De Reffye, P., Jaeger, M., Sabatier, S., Letort, V., 2018. Modelling the interaction between functioning and organogenesis in a stochastic plant growth model: Methodology for parameter estimation and illustration. IEEE Proceedings of 6th International Symposium on Plant Growth Modeling, Simulation, Visualization and Applications (PMA'18), Nov 2018, Hefei, China. pp. 102-110, (10.1109/PMA.2018.8611628)
- Jaeger, M., Sabatier, S., Borianne, P., de Reffye, P., Letort, V., Gang, Y., Zhang, X.-P. Kang, M.-Z., 2018. Data visualization for vegetal landscapes: Building 3D representations of organ biomass compartments. How plant production could constrain 3D lollipop-like representations. IEEE Proceedings of PMA'18 Nov 2018, Hefei, China. pp. 85-93
- Jaeger, M., de Reffye, P., Sabatier, S., Letort - Le Chevalier, V., Heuvelink, E., Caraglio, Y., Motisi, N., Krit, H., Lafond, M.-H., Kang, M.-G., Zhang, B.-G. 2016. Plant growth architecture and production dynamics : A set of e-learning resources. 2016 IEEE International Conference on Functional-Structural

- Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA), Qingdao, China, 2016, pp. 83-89. doi: 10.1109/FSPMA.2016.7818292
- Kang, M.-G., de Reffye, P., Hua, J., Jaeger, M. 2016. Parameter identification of plant growth models with stochastic development. 2016 IEEE International Conference on Functional-Structural Plant Growth Modeling, Simulation, Visualization and Applications (FSPMA), Qingdao, China, 2016, pp. 98-105. doi: 10.1109/FSPMA.2016.7818294
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