

## Curriculum Vitae

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Name, Surname: **Gerardo Lopez Velasco**  
 Nationality: **Spain**  
 Contact address: **gerardo.lopez.velasco@gmail.com**

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### PROFFESIONAL ACTIVITY

Research carrier oriented in crop physiology in fruit orchards. My carrier has been developed in four important places for fruit tree research: Institut de Recerca i Tecnologia Agroalimentàries (IRTA-Lleida, Spain), University of California, Davis (USA), University of Bologna (Italy), and INRA Montpellier (France). My major contribution to this field has been to understand the effects of water stress, high air temperatures, and solar radiation on tree growth and physiology, fruit crop production and the quality of fruit. My major goal is to understand the effects of multiple environmental conditions on fruit trees and to provide information on how to manage fruit trees under climate changing scenarios.

### TRAINING

#### Professional evolution in R+D

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|------------------------|--|
| Currently<br>(1 year)  | <b>Researcher</b><br>Architecture and Functions of Fruit Trees, INRA/Montpellier SupAgro (France)<br>“I received the support of the European Union, in the framework of the Marie-Curie FP7 COFUND People Programme, through the award of an AgreenSkills’ fellowship (under grant agreement n° 267196)” |
| 2013-2014<br>(1 year)  | <b>Researcher</b><br>University of Bologna, Dipt. Scienze Agrarie (Italy)  |
| 2008-2012<br>(5 years) | <b>Researcher</b><br>Department of Irrigation Technology, IRTA, Lleida (Spain)   |
| 2007<br>(1 year)       | <b>Postdoctotal fellow</b><br>Plant Science Department, University of Davis California (USA)<br>‘Simulation of source-sink behavior of peach trees by using L-PEACH model’   |

#### University education

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|-----------|---|
| 2003-2006 | <b>Doctorate, University of Lleida (Spain)</b><br><b>Title:</b> ‘Mitigation of effects of extreme drought during stage III of peach ( <i>Prunus persica</i> L. Batsch cv ‘O’Henry’) fruit development by summer pruning and fruit thinning’<br><b>Date of qualification:</b> 29/06/2006<br><b>Qualification:</b> Maximum qualification and doctorate award<br><b>Supervisor:</b> Jordi Marsal |
| 2002      | <b>Agricultural Engineer, Public University of Navarra (Spain)</b>  |

#### Language skills

Good command of English and Italian

## SCIENTIFIC ACTIVITY

**8 Research Projects**

- APmed  
(2012-2014) **"Apple and Peach in Mediterranean orchards: Integrating tree water status and irrigation management for coping with water scarcity and aphid control"**  
Arimnet, Coordination of the Agricultural Research in the Mediterranean Area  
Activity: Researcher assistant at IRTA (2012) and UniBo (2013-2014)
- Ager Melo  
(2013-2014) **"Qualità della mela nell'era della post-genomica, dalla creazione di nuovi genotipi alla post-raccolta: nutrizione e salute"**  
AGER: AGroalimentare E Ricerca.  
Activity: Researcher assistant at UniBo
- Ager Innovapero  
(2013-2014) **"Innovazioni di processo e di prodotto per una pericoltura di qualità"**  
AGER: AGroalimentare E Ricerca.  
Activity: Researcher assistant at UniBo
- EFFIDRIP  
(2012) **"Improving water saving in drip irrigation systems by a smart control based on novel processing of in-field and multiple source remote data"**  
Comisión Europea, FP7  
Activity: Researcher assistant at IRTA
- AGL 2008-10237  
(2010-2012) **"Effects of carbohydrate availability on peach fruit maturation and quality under severe pre-harvest water stress conditions"**  
Spanish Ministry of Science  
Activity: Principal researcher
- CSD2006-00067  
(2006-2012) **"The Global Irrigation Management Programme for Saving Water and Improving Productivity in Spanish Horticulture (RIDECO)"**  
Spanish Ministry of Science  
Activity: Researcher assistant at IRTA
- AGL 2005-00538  
(2005-2007) **"Fruit thinning mechanisms in response to water stress for crop sustainability during recurrent drought"**  
Spanish Ministry of Science  
Activity: field work at IRTA
- AGL 2002-00569  
(2003-2005) **"Mitigation of effects of extreme drought during stage III of peach (*Prunus persica* L. Batsch cv 'O'Henry') fruit development by summer pruning and fruit thinning"**  
Spanish Ministry of Science  
Activity: PhD at IRTA

**26 Scientific publications (citation index); h-index: 11**

- 2014 J. Marsal, S. Johnson, J. Casadesus, **G. Lopez**, J. Girona, C. Stöckle.  
Fraction of canopy intercepted radiation relates differently with crop coefficient depending on the season and the species: an evaluation for peach, pear and apple based on CropSyst simulations and lysimeter data.  
*Agricultural and Forest Meteorology*, 184:1– 11
- 2013 I. Auzmendi, J. Marsal, J. Girona, **G. Lopez**  
Daily photosynthetic radiation use efficiency for apple and pear leaves: seasonal changes and estimation of canopy net carbon exchange rate  
*European Journal of Agronomy*, 10.1016/j.eja.2013.05.007
- 2013 J. Marsal, J. Girona, J. Casadesus, **G. Lopez**, C.O. Stöckle  
Crop coefficient (Kc) for apple: comparison between measurement by a weighing lysimeter and prediction by CropSyst.  
*Irrigation Science*, 31:455-463. doi: 10.1007/s00271-012-0323-7.

- 2012 **G. Lopez**, M.H. Behboudian, J. Girona, J. Marsal  
Responses of 'Conference' Pear to Deficit Irrigation: Water Relations, Leaf Discrimination Against  $^{13}\text{CO}_2$ , Tree Starch Content, Growth, and Recovery After Rewatering  
*Journal of Plant Growth Regulation*, 32:273-280. Doi: 10.1007/s00344-012-9295-3.
- 2012 X. Vallverdú, J. Girona, G. Echeverria, J. Marsal, M.H. Behboudian, **G. Lopez**  
Sensory Quality and Consumer Acceptance of 'Tardibelle' Peach are Improved by Deficit Irrigation applied during Stage II of Fruit Development  
*HortScience*, 47(5):656-659.
- 2012 J. Marsal, **G. Lopez**, M. Mata, J. Girona.  
Postharvest deficit irrigation in 'Conference' pear in a deep soil: consequences in the following season  
*Agricultural water management*, 103:1-7. doi: 10.1016/j.agwat.2011.10.012.
- 2011 **G. Lopez**, M.H. Behboudian, G. Echeverria, M. Mata, J. Girona, J. Marsal  
Instrumental and sensory evaluation of fruit quality for 'Ryan's sun' peach grown under deficit irrigation.  
*HortTechnology*, 21(6):712-719.
- 2011 **G. Lopez**, C. Larrigaudiere, J. Girona, M.H. Behboudian, J. Marsal  
Fruit thinning in 'Conference' pear grown under deficit irrigation: implications for fruit quality at harvest and after cold storage  
*Scientia Horticulturae*, 129: 64-70. doi: 10.1016/j.scienta.2011.03.007.
- 2011 I. Auzmendi, M. Mata, **G. Lopez**, J. Girona, J. Marsal  
Intercepted radiation by apple canopy can be used as a basis for irrigation scheduling.  
*Agricultural Water Management*, 98:886-892. doi:10.1016/j.agwat.2011.01.001.
- 2011 J. Girona, J. del Campo, M. Mata, **G. Lopez**, J. Marsal  
A comparative study of apple and pear tree water consumption measured with two weighing lysimeters  
*Irrigation Science*, 29:55-63. doi: 10.1007/S00271-010-0217-5.
- 2010 **G. Lopez**, R.R. Favreau, C. Smith, T.M. DeJong  
L-PEACH: a computer-based model to understand how peach trees grow  
*HortTechnology*, 20 (6):983-990.
- 2010 **G. Lopez**, M.H. Behboudian, X. Vallverdu, M. Mata, J. Girona, J. Marsal.  
Mitigation of severe water stress by fruit thinning in 'O'Henry' peach: implications for fruit quality  
*Scientia Horticulturae*, 125:294-300. doi: 10.1016/j.scienta.2010.04.003.
- 2010 J. Marsal, M.H. Behboudian, M. Mata, B. Basile, J. del Campo, J. Girona, **G. Lopez**  
Fruit thinning in 'Conference' pear grown under deficit irrigation to optimize yield and to improve tree water status  
*The Journal of Horticultural Science and Biotechnology*, 85 (2):125-130.
- 2010 J. Marsal, **G. Lopez**, J. del Campo, M. Mata, A. Arbones, J. Girona  
Postharvest regulated deficit irrigation in 'Summit' sweet cherry: fruit yield and quality in the following season.  
*Irrigation Science*, 28:181-189. doi: 10.1007/s00271-009-0174-z .
- 2009 J. Marsal, **G. Lopez**, A. Arbones, M. Mata, X. Vallverdu, J. Girona.  
Influence of post-harvest deficit irrigation and pre-harvest fruit thinning on sweet cherry (cv. 'New Star') fruit firmness and quality.  
*The Journal of Horticultural Science and Biotechnology*, 84(3)273-278.

- 2008 **G. Lopez**, R.R. Favreau, C. Smith, E. Costes, P. Prusinkiewicz, T.M. DeJong  
Integrating simulation of architectural development and source-sink behaviour of peach trees by incorporating Markov chains and physiological organ function sub-models into L-PEACH.  
*Functional Plant Biology*, 35 (10): 761-771.
- 2008 **G. Lopez**, A. Arbones, M. Mata, C. Paris, J. Girona, J. Marsal  
Root growth following defruiting improves peach tree water status  
*The Journal of Horticultural Science and Biotechnology*, 83 (6): 804-808.
- 2008 **G. Lopez**, A. Arbones, J. del Campo, M. Mata, X. Vallverdu, J. Girona and J. Marsal  
Response of peach trees to regulated deficit irrigation during stage II of fruit development and summer pruning.  
*Spanish Journal of Agricultural Research*, 6(3):479-491.
- 2008 J. Marsal, M. Mata, A. Arbones, J. Girona and **G. Lopez**  
Factors involved in water stress alleviation subsequent to partial crop removal in pear trees.  
*Tree Physiology*, 28: 1375-1382.
- 2007 **G. Lopez**, R. S. Johnson and T.M. DeJong.  
High spring temperatures decrease peach fruit size.  
*California Agriculture*, 61 (1): 31-34.
- 2007 **G. Lopez**, J. Girona and J. Marsal.  
Response of winter root starch concentration to severe water stress and fruit load and its subsequent effects on early peach fruit development.  
*Tree physiology*, 27:1619-1626.
- 2007 **G. Lopez** and T.M. DeJong.  
Spring temperatures have a major effect on early stages of peach fruit growth.  
*The Journal of Horticultural Science and Biotechnology*, 82 (4):507-512.
- 2007 **G. Lopez**, J. Girona, J. del Campo and J. Marsal.  
Effects of relative source-sink position within peach trees on fruit growth under water deficit conditions.  
*The Journal of Horticultural Science and Biotechnolog*, 82 (1): 140-148.
- 2006 J. Marsal, **G. Lopez**, M. Mata and J. Girona.  
Branch removal and defruiting for the amelioration of water stress effects on fruit growth during stage III of peach fruit development  
*Scientia Horticultura*, 108:55-60.
- 2006 **G. Lopez**, M. Mata, A. Arbones, J.R. Solans, J. Girona and J. Marsal.  
Mitigation of effects of extreme drought during stage III of peach fruit development by summer pruning and fruit thinning.  
*Tree Physiology*, 26: 469-477.
- 2005 J. Marsal, **G. Lopez**, J. Girona, B. Basile and T.M. DeJong.  
Heterogeneity in fruit distribution and stem water potential variations within peach trees under different irrigation conditions.  
*The Journal of Horticultural Science and Biotechnology*, 80 (1): 82-86.

**16 Scientific publications (no citation index)**

- 2014 **G. Lopez**, M.H. Behboudian, X. Vallverdu, J. Girona, J. Marsal, G. Echeverria  
Deficit irrigation in peach and nectarine: sensory quality and consumer acceptance of the fruit.  
*Acta Horticulturae* 1038:177-184
- 2014 J. Marsal, J. Casadesus, **G. Lopez**, J. Girona, J. C.O. Stöckle.  
Disagreement between tree size and crop coefficient in 'Conference' pear: comparing measurements by a weighing lysimeter and prediction by CropSyst.  
*Acta Horticulturae* 1038:303-310

- 2012 T.M. DeJong, C. Negron, R. Favreau, E. Costes, **G. Lopez**, Y. Guedon,  
Using Concepts of Shoot Growth and Architecture to Understand and Predict Responses of  
Peach Trees to Pruning.  
*Acta Horticulturae*, 962: 225-232.
- 2012 **G. Lopez**, J. Girona and J. Marsal  
Fruit quality responses to severe water stress during Stage III of peach fruit development.  
*Acta Horticulturae*, 962: 355-361.
- 2011 **G. Lopez**, J. Girona, J. Marsal  
Drought in peach fruit orchards: Summer pruning vs. fruit thinning for water stress relief and  
long-term effects of water stress.  
*Acta Horticulturae*, 903:1187-1194.
- 2011 **G.Lopez**, K. Day, T.M. DeJong  
Why do early spring temperatures reduce peach fruit size and yield at harvest?  
*Acta Horticulturae*, 903:1055-1062.
- 2011 T.M DeJong, Y.L. Grossman, R.R. Favreau, **G. Lopez**  
Using concept-based computer simulation modelling to study and develop and integrated  
understanding of tree crop physiology.  
*Acta Horticulturae*, 903:751-757.
- 2011 J. Girona, J. del Campo, **G. Lopez**, M. Mata, J. Marsal  
Water Consumption in Lysimeter-grown Apple and Pear Trees with Different Training Systems  
*Acta Horticulturae*, 903:1181-1186.
- 2008 K. Day, **G. Lopez** and T.M. DeJong  
Using Growing Degree Hours Accumulated Thirty Days after Bloom to Predict Peach and  
Nectarine Harvest Date  
*Acta Horticulturae*, 803:163-167
- 2008 **G. Lopez** and T.M. DeJong  
Using Growing degree Hours accumulated Thirty Days after Bloom to help Growers Predict  
Difficult Sizing Years  
*Acta Horticulturae*, 803: 175-180.
- 2008 C. Smith, E. Costes, R.R. Favreau, **G. Lopez** and T.M. DeJong  
Improving the Architecture of Simulated Trees in L-PEACH by Integrating Markov Chains and  
Pruning  
*Acta Horticulturae*, 803: 201-208.
- 2008 **G. Lopez**, C. Smith, R.R. Favreau and T.M. DeJong.  
Using L-PEACH for Dynamic Simulation of Source-Sink Behavior of Peach Trees: Effects of  
Date of Thinning on Fruit Growth  
*Acta Horticulturae*, 803: 209-216.
- 2008 J. Marsal, **G. Lopez** and J. Girona.  
Recent advances in regulated deficit irrigation (RDI) in woody perennials and future  
perspectives.  
*Acta Horticulturae*. 792:429-440.
- 2007 R.R Favreau, **G. Lopez**, C. Smith and T.M. DeJong  
Evaluation and Calibration of the Carbohydrate Assimilation, Partitioning, and Transport  
Processes in the L-PEACH Model  
In: Proceedings of the 5<sup>th</sup> international workshop on functional-structural plant models. (Eds. P.  
Prusinkiewicz J. Hanan, B Lane) pp, 7.1-7.2. (Print Solutions Hawke's Bay Limited: Napier,  
New Zealand).

- 2006 J. Girona, J. Marsal and **G. Lopez**.  
Establishment of stem water potential thresholds for the response of 'O'Henry' peach fruit growth to water stress during Stage III of fruit development.  
*Acta Horticulturae*, 713: 197-202.
- 2004 J. Marsal, **G. Lopez**, M. Mata, A. Arbones and J. Girona.  
Recommendations for water conservation in peach orchards in Mediterranean climate zones using combined regulated deficit irrigation.  
*Acta Horticulturae*, 664: 391-397.

## **2 book chapters**

- 2013 **G. Lopez**, M.H. Behboudian, J. Girona, J. Marsal.  
Drought in deciduous fruit orchards: implications for yield and fruit quality.  
In: R. Aroca (Ed.), *Plant Responses to Drought Stress: From Morphological to Molecular Features*. Springer-Verlag, Berlin Heidelberg, pp:441-459. doi: 10.1007/978-3-642-32653-0-17.
- 2011 M.H. Behboudian, J. Marsal, J. Girona, **G. Lopez**  
Quality and Yield Responses of Deciduous Fruits to Reduced Irrigation  
*Horticultural Reviews* 38:149-189.

## **14 Extension publications**

- 2014 **G. Lopez**, X. Vallverdu, M. Mata, J. Del Campo, J. Girona, G. Echeverria, J. Marsal  
Riego deficitario en melocotonero: calidad sensorial del fruto  
*Agricultura* 969, 58-61.
- 2013 **G. Lopez**, J. Girona, J. Marsal.  
Sequia: efectos en las plantaciones frutícolas.  
*Revista de Fruticultura* 29:1-8.
- 2011 **G. Lopez**, J. Girona, J. Marsal.  
Riego de frutales en el valle del Ebro ante situaciones de escasez de agua  
*Riegos y Drenajes XXI* 181: 24-29.
- 2011 **G. Lopez**, R. Favreau, C. Smith, T. DeJong.  
L-PEACH: modelización del crecimiento del melocotonero.  
*Revista de Fruticultura* 11: 18-23.
- 2010 **G. Lopez**, J. Marsal, J. Girona  
Riego deficitario en melocotonero. Efectos en la productividad y calidad del fruto.  
*Vida Rural* 318:46-50.
- 2010 **G. Lopez**, M. Mata, C. Paris, J. Girona, J. Marsal.  
Respuestas de los frutales al aclareo intensivo de fruta bajo condiciones de sequía.  
*Revista de Fruticultura* 5: 12-18.
- 2008 J. Marsal, J. Girona, M. Mata, **G. Lopez**.  
Aspectes sobre l'aplicació de l'aclarida de fruita com a tècnica d'estrès hídric en perera.  
*In: Dossiertècnic 30: Us efficient del'aigua en situacions extremes. pp:9-11.*
- 2008 **G. Lopez**, J. Girona, J. Marsal  
Mitigació de sequera en presseguer mitjançant tècniques culturals: esporga d'estiu i aclariment de fruits.  
*In: Dossiertècnic 30: Us efficient del'aigua en situacions extremes. pp:12-14.*
- 2008 T.M. DeJong, C. DeBuse and **G. Lopez**.  
Using spring weather data to predict harvest date for "Improved French" prune.  
*Fruit and Nut Notes*. 4: 2-3.

- 2008 **G. Lopez**, A. Arbonés, J. del Campo, M. Mata, X. Vallverdú, J. Girona, J. Marsal.  
Mitigación de sequía extrema en melocotonero mediante técnicas culturales: poda de verano y aclareo de frutos.  
*Fruticultura Profesional*. 174:5-14.
- 2007 T.M. DeJong, C. DeBuse and **G. Lopez**.  
Using spring weather data to predict harvest date for “Improved French” prune.  
*Sacramento Valley Prune News*. 4 (2):5-6  
*Orchard Facts*. 9 (5):5-6
- 2006 J. Marsal, **G. Lopez**, and J. Girona.  
Recent advances in regulated deficit irrigation (RDI) in woody perennials and future perspectives.  
*Australian Nutgrower*. 20 (4):4-8
- 2005 J.Rufat, J. del Campo, M. Mata, A. Arbones, M. Gelly, **G. Lopez**, N. Olivo, V.M. Reyes, J. Marsal y J. Girona.  
Evaluación del balance de nitrógeno en plantaciones de manzano.  
*Vida rural*. 215: 30-33
- 2004 J.Rufat, J. del Campo, M. Mata, A. Arbones, M. Gelly, **G. Lopez**, N. Olivo, V.M. Reyes, J. Marsal y J. Girona.  
Riego y abonado nitrogenado en Manzano Golden.  
*Vida rural*. 187: 52-55

#### **10 work presented in conferences**

- 2012 **G. Lopez**, J. Girona, J. Marsal, M.H. Beheboudian  
X International Symposium on integrating canopy, rootstock and environmental physiology in orchard systems  
International Society for Horticultural Science  
Stellenbosch (South Africa)  
Oral presentation: “Yield and quality responses of deciduous fruit trees to drought and strategies for its mitigation”
- 2012 **G. Lopez**, J. Girona, J. Marsal  
VII Internacional Symposium on Irrigation of Horticultural Crops.  
International Society for Horticultural Science  
Geisenheim, Germany  
Oral presentation: “Deficit Irrigation in Peach and Nectarine: Sensory Quality and Consumer Acceptance.
- 2011 **G. Lopez**, J. Girona, J. Marsal, T.M. DeJong  
IX Internacional Symposium on Modelling in Fruit Research and Orchard Management.  
International Society for Horticultural Science  
Saint-Jean-sur-Richelieu (Canada).  
Oral presentation: “Physiological Basis to Model Peach Canopy Photosynthesis under Water Stress Conditions”
- 2011 J. Marsal, **G. Lopez**, J. Girona  
Congreso Agricultura, Agua y Energía. Ciencia, Tecnología, política y planificación del agua y de la energía en los regadíos. Aspectos socioeconómicos y ambientales.  
Adecagua, Ministerio Medio Ambiente, Medio Rural y Marino, Enginyers Industrials de Catalunya.  
Madrid (España)  
Poster: "Manejo del riego en frutales en situaciones de escasez de agua"

- 2010 **G.Lopez, J. Girona, J. Marsal**  
X Symposium Hispano Portugués de Relaciones Hídricas en las Plantas  
Cartagena (Spain)  
Oral presentation: "Sequía extrema en melocotonero: Efectos en la calidad del fruto"
- 2009 **G.Lopez, J. Girona, J. Marsal**  
VII Internacional Peach Symposium  
International Society for Horticultural Science  
Lleida (Spain)  
Oral presentation: "Effects of Severe Water Stress during Stage III of Peach Fruit Development on Fruit Quality"
- 2008 **G.Lopez, J. Girona and J. Marsal**  
9<sup>th</sup> International Symposium on integrating canopy, rootstock and environmental physiology in orchard systems  
International Society for Horticultural Science  
Geneva (USA)  
Oral presentation: "Mitigation of water stress by summer pruning and fruit thinning"
- 2007 R.R Favreau, **G. Lopez, C. Smith and T.M. DeJong**  
5th International Workshop on Functional Structural Plant Models.  
Napier (New Zealand)  
Oral presentation: "Evaluation and Calibration of the Carbohydrate Assimilation, Partitioning, and Transport Processes in the L-PEACH Model"
- 2006 **G. Lopez, J. Girona y J. Marsal.**  
VIII Symposium Hispano Portugués de Relaciones Hídricas en las Plantas.  
Puerto de la Cruz (Spain)  
Oral presentation: "Effects of extreme drought during stage III of peach fruit development on subsequent winter root starch content, fruit set and early fruit growth"
- 2004 **G. Lopez, J. Girona y J. Marsal.**  
VII Simposio Luso-Espanhol de Relações Hídricas das Plantas.  
Faro (Portugal)  
Oral presentation: "Mitigación de los efectos de sequía extrema durante la fase III de desarrollo del fruto del melocotonero mediante técnicas culturales: Poda de verano y aclareo de frutos"

### **16 contributions to conferences**

- 2012 **J. Marsal, J. Girona, J. Casadesus, G. Lopez, C.O. Stöckle**  
VII Internacional Symposium on Irrigation of Horticultural Crops.  
International Society for Horticultural Science  
Geisenheim, Germany  
Oral presentation: "Crop coefficients for pear 'Conference': Comparison between measurements by a weighing lysimeter and prediction by CropSyst"
- 2011 **J. Girona, J. Casadesús, M. Mata, J. del Campo, A. Arbonés, G. López, J.Rufat., J. Marsal.**  
Congreso Agricultura, Agua y Energía. Ciencia, Tecnología, política y planificación del agua y de la energía en los regadíos. Aspectos socioeconómicos y ambientales.  
Adecagua, Ministerio Medio Ambiente, Medio Rural y Marino, Enginyers Industrials de Catalunya.  
Madrid (España)  
Oral presentation: "Eficiencia productiva del agua en función de la tecnología y el conocimiento aplicados al manejo del riego en diferentes cultivos".

- 2010 **I. Auzmendi**, M. Mata, J. Del Campo, G. Lopez, J. Girona, J. Marsal  
X Symposium Hispano Portugués de Relaciones Hídricas en las Plantas  
Cartagena (Spain)  
Oral presentation: "Intercepted radiation by apple canopy can be used as a basis for irrigation scheduling"
- 2010 **X. Vallverdú**, J. Girona, J. Casadesús, G. López, J. Rufat, H. Behboudian, J.M. Villar, J. Marsal  
VII ANQUE International Congress  
Oviedo (Spain)  
Oral presentation: "Regulated deficit irrigation (RDI) in woody crops. A smart approach to optimize water use efficiency"
- 2010 **T.M. DeJong**, D.da Silva, R. Favreau, I. Auzmendi, G. Lopez, E. Costes and P. Prusinkiewicz  
IHC (WORKSHOP 27: FUNCTIONAL-STRUCTURAL PLANT MODELS: WHAT ARE THE HORTICULTURAL APPLICATIONS?)  
Lisboa (Portugal)  
Oral presentation: "Using FSPM to study, understand and simulate fruit tree physiology, architecture, growth and production responses to changes in genetics, environment and management"
- 2009 **J. Marsal**, J. Girona and G. Lopez  
VII Internacional Peach Symposium  
Lleida (Spain)  
Poster: "Drought Management Strategies in Peach Tree Orchards"
- 2009 **T. DeJong**, C. Negron, G. Lopez, R. Favreau, K. Day, Y. Guedon and E. Costes  
VII Internacional Peach Symposium  
Lleida (Spain)  
Presentación oral: "Using Concepts of Shoot Growth and Architecture to Understand and Predict Responses of Peach Trees to Pruning"
- 2008 G.Lopez, K. Day and **T.M. DeJong**  
9<sup>th</sup> International Symposium on integrating canopy, rootstock and environmental physiology in orchard systems  
Geneva (USA)  
Presentación oral: Why do early spring temperatures reduce peach fruit size and yield at harvest?
- 2008 C. DeBuse, G.Lopez and **T.M DeJong**  
IX International Symposium on plum and prune genetics: Breeding and pomology.  
Palermo (Italy)  
Oral presentation: "Using weather data to predict harvest date for "Improved French" prune"
- 2007 G. Lopez and **T.M. DeJong**.  
VIII Internacional Symposium on Modelling in Fruit Research and Orchard Management.  
Wädenswill (Switzerland).  
Oral presentation: "Using Growing Degree Hours Accumulated Thirty Days after Bloom to Help Growers Predict Difficult Fruit Sizing Years"
- 2007 K. Day, G. Lopez and **T.M. DeJong**  
VIII Internacional Symposium on Modelling in Fruit Research and Orchard Management.  
Wädenswill (Switzerland).  
Oral presentation: "Using Growing Degree Hours Accumulated Thirty Days after Bloom to Predict Peach and Nectarine Harvest Date"

- 2007 G. Lopez, C. Smith, R.R. Favreau and **T.M. DeJong**  
VIII Internacional Symposium on Modelling in Fruit Research and Orchard Management.  
Wädenswill (Switzerland).  
Oral presentation: "Using L-PEACH for Dynamic Simulation of Source-Sink Behavior of Peach Trees: Effects of Date of Thinning on Fruit Growth"
- 2007 C. Smith, **E. Costes**, R.R. Favreau, G. Lopez and T.M. DeJong  
VIII Internacional Symposium on Modelling in Fruit Research and Orchard Management.  
Wädenswill (Switzerland).  
Oral presentation: "Improving the Architecture of Simulated Trees in L-PEACH by Integrating Markov Chains and Pruning"
- 2006 **J. Marsal**, G. Lopez, and J. Girona.  
V Internacional Symposium on Irrigation of Horticultural Crops.  
Mildura (Australia)  
Invited Oral presentation: "Recent advances in regulated deficit irrigation (RDI) in woody perennials and future perspectives"
- 2005 **J. Girona**, J. Marsal and G. Lopez.  
VI Internacional Peach Symposium.  
Santiago (Chile)  
Poster: "Recommendations for water conservation in peach orchards in Mediterranean climate zones using combined regulated deficit irrigation"
- 2003 **J. Marsal**, G. Lopez, M. Mata, A. Arbones and J. Girona.  
.IV Internacional Symposium on Irrigation of Horticultural Crops.  
Davis (USA)  
Oral presentation: "Recommendations for water conservation in peach orchards in Mediterranean climate zones using combined regulated deficit irrigation"

#### **14 Works presented in seminars and meetings**

- 2012 **Rideco-Consolider meeting, scientific evaluation, Madrid, Spain.**  
"Deficit irrigation in fruit crops: sensory quality and consumer acceptance"
- 2012 **Reunión APmed, kick-off meeting, Montpellier, France.**  
"Physiological basis to model canopy water use"
- 2012 **UCDavis, LAWR recruitment seminar, Davis, USA.**  
"Irrigation management of fruit orchards under water limited conditions"
- 2012 **UCDavis – IRTA meeting on water relations, Davis, USA.**  
'Implications of the use of RDI on fruit quality'
- 2011 **IRTA's strategic plan: Water use efficiency program, Lleida, Spain.**  
"Research topic 1: Efficient use of irrigation water"
- 2010 **3ª Reunión Rideco-Consolider**  
**Reunión Hispano portuguesa de grupos de investigación en riego y relaciones hídricas en cultivos leñosos, Badajoz, Spain.**  
"Programación de RDC mediante valores umbral de potencial hídrico en melocotonero"
- 2009 **II Jornada de Reg en Preseseguer, Lleida, Spain.**  
"Reg deficitari controlat en preseseguer primerenc"
- 2009 **Fira Moollerussa, Lleida, Spain.**  
"Mitigació de sequera en preseseguer mitjançant tècniques culturals"

- 2009 **2ª Reunión Rideco Consolider, Murcia, Spain.**  
Sequía Extrema en Melocotonero: Efectos en la Calidad del Fruto
- 2008 **Inra seminars, Montpellier, France.**  
Drought in Peach Orchards: Summer Pruning vs. Fruit Thinning for water stress mitigation and Long-term effects of water stress
- 2007 **1ª Reunión Rideco Consolider, Lleida, Spain.**  
L-PEACH: Simulación de la arquitectura y partición de carbohidratos en melocotonero
- 2007 **Frogs seminars, University of Davis, Davis, USA.**  
L-Peach
- 2005 **Frogs seminars, University of Davis, Davis, USA.**  
Effects of Early Spring Temperature and Trends in the California Peach Industry on Peach Fruit Size
- 2003 **Pirap meeting Lleida, Spain.**  
Efecto de la poda de verano como técnica de mejora del crecimiento del fruto del melocotonero durante la fase III de crecimiento del fruto.

### TEACHING EXPERIENCE

#### Supervisor of doctoral thesis

- 2007-2011 **"Effect of the intercepted radiation on photosynthesis and transpiration in apple and pear canopies"**  
Supervisors: Joan Girona, **Gerardo Lopez**  
PhD student: Iñigo Auzmendi Migelena  
Grant: INIA  
University: Universidad Pública de Navarra  
18 February 2011

#### 4 courses for fruit growers and students

- 2012 **Curs d'emprenedors en fruticultura**  
Escola de capacitació agrària d'alfarràs, Departament d'agricultura, ramaderia, pesca, alimentació i medi natural, Generalitat de Catalunya.  
'Riego deficitario y calidad del fruto'  
31/01/2012, 1h
- 2010 **Curso Técnico Superior Internacional Ingeniería y Gestión Sostenible de Regadíos.**  
Centro Nacional Tecnología Regadíos (center)  
Programación del riego deficitario controlado en cultivos frutales: Aspectos prácticos.  
14/06/2010, 1 h.
- 2010 **Curs sobre Gestió de sòls i aigües en sistemes agrícoles**  
Universidad de Lleida.  
Estación Lisimétrica  
9/02/2010, 1 h.
- 2010 **Curs sobre tecnologia del reg i la fertilització**  
Escuela de Ingenieros Agrónomos de Lleida  
Estrategias de riego en casos de sequía extrema  
12/01/2010, 1 h.

## OTHER CREDITS

### Pre-doctoral residences in research centers

- 2005 Fourth month stay at the Plant Science Departement. University of Davis California (USA). (Ref. Theodore DeJong).
- 2002 Three month stay at the Plant Physiology Departement. University of Chapingo (México). (Ref. Raúl Nieto Ángel).
- 2001 Three month stay at the Plant Physiology Departement. University of Chapingo (México). (Ref. Raúl Nieto Ángel).
- 1999/2000 4<sup>th</sup> Course of Agricultural Engineer. Università degli Studi di Udine (Italy).

### Complementary formation

- 2010-2012 Trained panelist for the sensory evaluation of fruits (peach and tomatoes). IRTA, Lleida.
- 2011-2012 Training in sensory evaluation of food. INNOPAN, Lleida. (80 h).
- 2008 Course: Management of neutron probe devices for the determination of water content in agricultural soils (40 h)
- 2001/02 Student grant. Experimental orchard. Public University of Navarra (Spain).
- 2000 Research grant Ministry of Science. Department of Pomology. Public University of Navarra (Spain).
- 1997 Student grant. Department of Applied Chemistry. Public University of Navarra (Spain).

*18 August 2014.*