

## List of publications

**H-index : 11**

### Articles published in indexed journals

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1. Sartori K.F.\*, **Vasseur F.\***, Violle C., Baron E., Gerard M., Rowe N., Ayala-Garay O., Christophe A., De Jalon L.G., Masclef D., Harscouet E. (2019). Leaf economics guides slow-fast adaptation across the geographic range of *A. thaliana*. bioRxiv. 1:487066. Manuscrit accepté dans *Scientific Reports*. \*: co-premiers auteurs.  
> **This postdoc article analyses the variation of resource-use strategies within species and the relation with local adaptation among ecotypes.**  
**Citations: 0.**
2. **Vasseur F.**, Sartori K., Baron E., Fort F., Kazakou E., Segrestin J., Garnier E., Vile D., Violle C. (2018) Climate as a driver of adaptive variations in ecological strategies in *Arabidopsis thaliana*. *Annals of Botany* 122(6):935-45.  
> **This postdoc article examines the variation in ‘C-S-R’ strategies among *A. thaliana* ecotypes.**  
**Citations: 0.**
3. **Vasseur F.**, Wang G., Bresson J., Schwab R., Weigel D. (2018) Image-based methods for phenotyping growth dynamics and fitness in *Arabidopsis thaliana*. *Plant Methods* 14(1): 63.  
> **This postdoc article proposes an easy and reproducible method to quantify growth variation and fitness components from image analysis. Citations: 1.**
4. **Vasseur F.**, Exposito-Alonso M., Ayala-Garay O., Wang, G., Enquist B.J., Vile D., Violle C., Weigel, D. (2018) Adaptive diversification of growth allometry in the plant *Arabidopsis thaliana*. *Proceedings of the National Academy of Sciences USA*, 115 (13), 3416-3421.  
> **This postdoc article identifies intraspecific variations in plant allometry and proposes an evolutionary scenario to explain the maintenance of these variations. Citations: 4.**
5. Exposito-Alonso M., **Vasseur F.**, Ding W., Wang G., Burbano H.A., Weigel D. (2018). Genomic basis and evolutionary potential for extreme drought adaptation in *Arabidopsis thaliana*. *Nature ecology & evolution* 2(2): 352.  
> **This postdoc article identifies the genes involved in stress resistance and suggests that higher resistance to water deficit have been adaptively maintained at the opposite edges of *A. thaliana* geographic range. Citations: 13.**
6. Seymour D.K., Chae E., Grimm D.G., Pizarro C.M., Haring-Muller A., **Vasseur F.**, Rakitsch B., Borgwardt K.M., Koenig D., Weigel D. (2016). The genetic architecture of non-additive inheritance in *Arabidopsis thaliana* hybrids. *Proceedings of the National Academy of Sciences USA*, 113(46): E7317–E7326.  
> **This postdoc article investigates the genetic bases of hybrid vigour, using the recent developments of genomic data in a model species. Citations: 19.**

7. Blonder B., **Vasseur F.**, Violle, C., Shipley B., Enquist B.J., Vile D. (2015). Testing models for the leaf economics spectrum with leaf and whole-plant traits in *Arabidopsis thaliana*. *AoB Plants*, plv049.  
> **This PhD article compares different mechanistic models to explain the emergence of trait-trait relationships within species. Citations: 27.**
8. **Bresson J.\***, **Vasseur F.\***, Dauzat M., Koch G., Granier C., Vile D. (2015). Quantifying spatial heterogeneity of chlorophyll fluorescence during plant growth and in response to water stress. *Plant methods*, 11(1): 23.  
(\*: co-first authors).  
> **This PhD article proposes a new method to quantify the efficiency of photosynthesis from image analysis. Citations: 40.**
9. Bresson J., **Vasseur F.**, Dauzat M., Labadie M., Varoquaux F., Touraine B., Vile D. (2014). Interact to survive: *Phyllobacterium brassicacearum* improves *Arabidopsis* tolerance to severe water deficit and growth recovery. *Plos One*, e107607.  
> **This PhD article evaluates the role of soil bacteria on the promotion of growth in *A. thaliana*. Citations: 17.**
10. **Vasseur F.**, Bontpart T., Dauzat M., Granier C., Vile D. (2014). Multivariate genetic analysis of plant responses to water deficit and high temperature revealed contrasting adaptive strategies. *Journal of Experimental Botany*, 65(22): 6457-6469.  
> **This PhD article models the genetic architecture of plant responses to multiple stresses. Citations: 20.**
11. Lièvre M., Wuyts N., Cookson S. J., Bresson J., Dapp M., **Vasseur F.**, Massonet C., Tisné S., Bettembourg M., Balsera C., Bédié A., Bouvery F., Dauzat M., Rolland G., Vile D., Granier, C. (2013). Phenotyping the kinematics of leaf development in flowering plants: recommendations and pitfalls. *Wiley Interdisciplinary Reviews: Developmental Biology*, 2(6): 809-821.  
> **This PhD article proposes an analytical framework for the study of growth variations in plants. Citations: 13.**
12. **Vasseur F.**, Violle C., Enquist B.J., Granier C., Vile D. (2012). A common genetic basis to the origin of the leaf economics spectrum and metabolic scaling allometry. *Ecology Letters*, 15(10): 1149-1157.  
> **This PhD article identifies the genetic determinism of the variation in allometric relationships within species. Citations: 72.**
13. Randoux M., Jeauffre J., Thouroude T., **Vasseur F.**, Hamama L., Juchaux M., Sakr S., Foucher F. (2012). Gibberellins regulate the transcription of the continuous flowering regulator, RoKSN, a rose TFL1 homologue. *Journal of Experimental Botany*, 63(18): 6543-6554.  
> **This Master article investigates the molecular control of recurrent blooming in rose. Citations: 40.**
14. Vile D., Pervent M., Belluau M., **Vasseur F.**, Bresson J., Muller B., Granier C., Simonneau T. (2012). *Arabidopsis* growth under prolonged high temperature and water deficit: independent or interactive effects? *Plant Cell and Environment*, 35(4): 702-718.  
> **This PhD article examines the relative roles of water stress and high temperature on plant ecophysiological responses. Citations: 114.**

15. **Vasseur F.**, Pantin F., Vile D. (2011). Changes in light intensity reveal a major role for carbon balance in *Arabidopsis* responses to high temperature. *Plant Cell and Environment*, 34(9): 1563-1576.  
 > **This PhD article proposes an original hypothesis about the role of carbon balance in leaf movements. Citations: 54.**

## Submitted articles

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1. **Vasseur F.**, Fouqueau L., De Vienne D., Nidelet T., Violle C., Weigel D. Non-linear phenotypic variation uncovers the emergence of heterosis in *Arabidopsis thaliana* In revision in *PLOS Biology*. bioRxiv doi: <https://doi.org/10.1101/404616>.  
 > **This article proposes a predictive model of hybrid vigour based on the non-linear, allometric relationships between plant traits.**
2. Kazakou E.\*, **Vasseur F\***, Sartori K, Baron E, Rowe N, Vile D & Violle C. Genetic and phenotypic drivers of litter decomposition in natural accessions of *Arabidopsis thaliana*. in revision in *New Phytologist*. \*: **co-first authors.**  
 > **This article evaluates the variation of litter decomposition within species.**
3. Pantin F., **Vasseur F.** , Valluru R., Feike D., Smith A., Muller B., Simonneau T., Vile D. Hyponasty as an adaptation to high temperature: beyond cooling, carbon matters. In revision for *Plant Cell*.  
 > **This article investigates the role of carbon starvation in the control of leaf movement under high temperature.**
4. Tucker M.C., **Vasseur F.** , Baron E., Gerard M., Kazakou E., Sartori K., Vile D., Violle C. The scaling of plant variation: comparing evolutionary constraints on trait relationships across taxonomic scales. In revision for *Nature Ecology and Evolution*].  
 > **This article compares the correlation structure of trait-trait relationships within and across plant species.**
5. Exposito-Alonso M., Rodríguez R.G., Barragán C., Capovilla G., Chae E., Devos J., Dogan E.S., Friedemann C., Gross C., Lang P., ..., **Vasseur F.**, ..., and Weigel D. A rainfall-manipulation experiment with 517 *Arabidopsis thaliana* accessions. bioRxiv (2017): p.186767. Submitted to *Scientific Data*.  
 > **This article describes a field experiment performed in different locations, with many traits related to plant ecophysiology and performance have been measured.**

## Article published in non-indexed journals

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1. Dauzat M., Dambreville A., Bresson J., Vile D., Muller B., Negre V., Koch G., **Vasseur F.**, Bediee A., Desigaux M. and Fourreau D. (2016) PHENOPSIS Quelles évolutions technologiques du premier automate de phénotypage des plantes? *Cahier des Techniques de l'INRA*, 89, p.np.

> ***This article describes the recent technical advances made on the high-throughput phenotyping platform PHENOPSIS.***

## Oral communications published in conference paper

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1. **Vasseur F.**, Scheepens J., Vile D., Garnier E., Exposito-Alonso M., Kazakou E., Lenormand T., Bossdorf O., Weigel D. and Violle C. (2018) AraBreed: testing ecological theories with experimental evolution in a model plant species. *Oral communication*. International Conference on Ecological Sciences (Rennes, France).
2. **Vasseur F.**, Scheepens J., Vile D., Garnier E., Exposito-Alonso M., Kazakou E., Lenormand T., Bossdorf O., Weigel D. and Violle C. (2018) AraBreed: testing ecological theories with experimental evolution in a model plant species. *Poster*. II Joint Congress on Evolutionary Biology (Montpellier, France).
3. **Vasseur F.**, Exposito-Alonso M., Ayala-Garay O., Wang G., Violle C., Vile D., Weigel, D. (2017) Adaptive diversification of plant allometry in *Arabidopsis thaliana*. *Poster*. 39th New Phytologist Symposium (Exeter, UK).
4. **Vasseur F.**, Exposito-Alonso M., Ayala-Garay O., Wang G., Violle C., Vile D., Weigel, D. (2016) Local adaptation explains intraspecific diversification of allometric relationships. *Oral communication*. 46th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland (Marburg, Germany).
5. **Vasseur F.**, Exposito-Alonso M., Ayala-Garay O., Wang G., Violle C., Vile D., Weigel, D. (2016) Adaptive diversification of plant allometry in *Arabidopsis thaliana*. *Poster*. Gordon Research Conference (Portland, USA).
6. **Vasseur F.** (2016) Growth scaling irregularities explained by local adaptation in *Arabidopsis thaliana*. *Poster*. EMBL symposia – New Model Systems for Linking Evolution and Ecology (Heidelberg, Germany).
7. **Vasseur F.**, Ayala-Garay O., Exposito-Alonso M., Wang G., Violle C., Vile D., Weigel, D. (2015) Local adaptation of the growth strategies across the range of *A. thaliana*. *Poster*. International Conference on Arabidopsis Research (Paris, France).
8. **Vasseur F.**, Chae E., Seymour D., Scacchi E., Wang G., Weigel D. (2014) Comparison of growth and defense related traits in a set of Arabidopsis hybrids. *Poster*. RegioPlant Meeting (Hohenheim, Germany).
9. **Vasseur F.** (2013) To grow or defend? Genome-wide association study of a fundamental trade-off in plant. *Oral communication*. Triangle Meeting (Cologne, Germany).
10. **Vasseur F.**, Violle C., Enquist B.J., Granier C., Vile D. (2012). A common genetic basis to the origin of the leaf economics spectrum and metabolic scaling allometry. *Poster*. Gordon Research Conference (Portland, USA).
11. **Vasseur F.**, Vile D. (2012) Genetic determinisms of plant plasticity: disentangling crypticgenetic variation from plant allometry. *Poster*. International Conference on Arabidopsis Research (Vienna, Austria).

12. **Vasseur F.**, Pantin F., Dauzat M., Rolland G., Bédiée A., Muller B., Granier C. Vile D. (2010) Arabidopsis response to high temperature is mediated by light intensity. *Oral communication*. Federation of European Societies of Plant Biology, FESPB (Valencia, Spain).