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WHEAMM: a new functional-structural plant model to study plastic responses to competition for light in wheat cultivar mixtures

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HAL Authorization

A lush tropical forest scene with large, vibrant green banana leaves in the foreground and a dense canopy of various trees and plants in the background. The lighting is bright, suggesting a sunny day.

PlantComp 2022

Flash Presentations

Meije Gawinowski

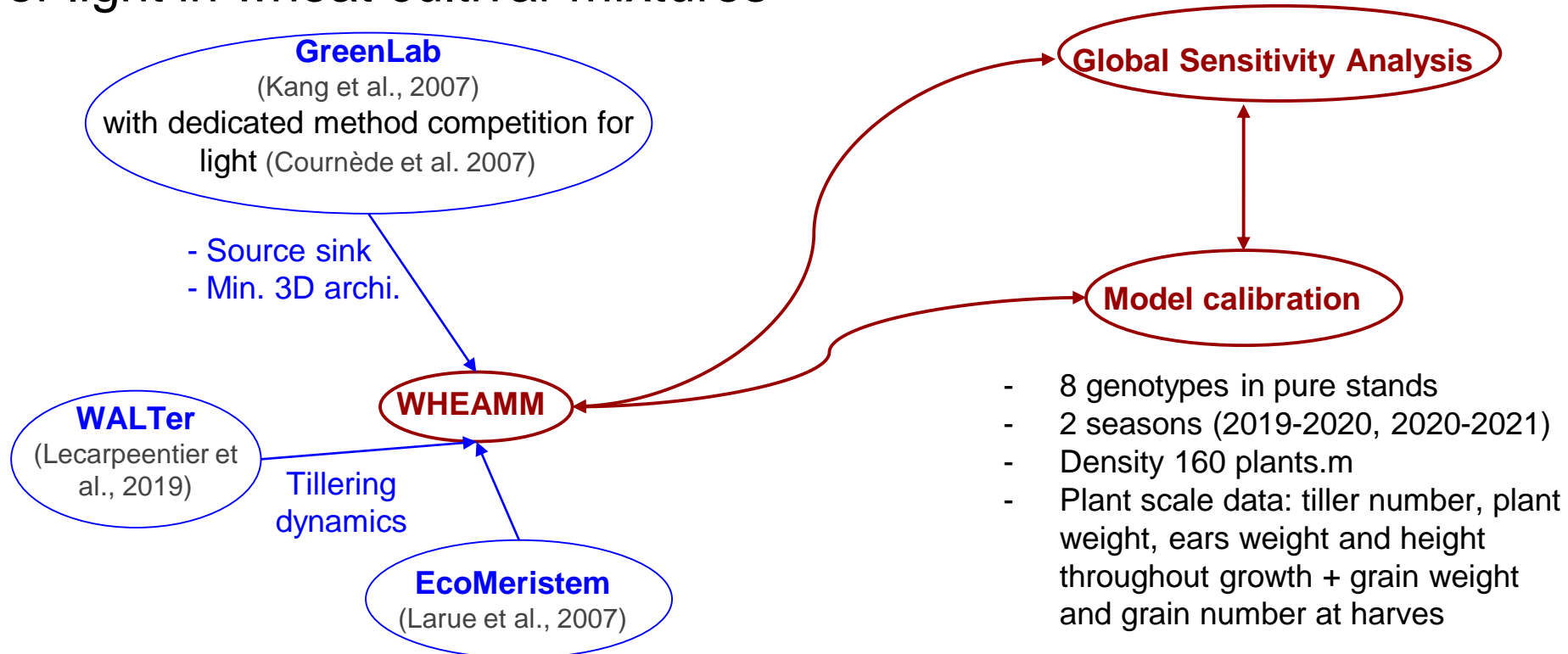
WHEAMM: a new FSPM to study plastic responses to competition for light in wheat cultivar mixtures

Meije Gawinowski*, Jérôme Enjalbert, Paul-Henry Cournède and Timothée Flutre

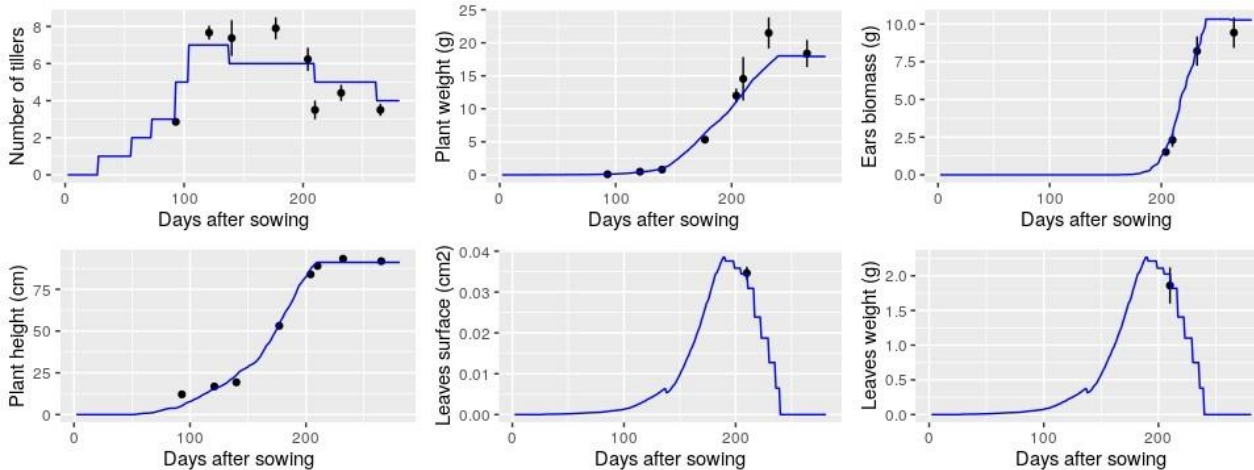
- ❖ Agroecological transition
- ❖ Wheat cultivar mixtures
 - Higher yields
 - Large variance
- ❖ Plant-plant interactions → phenotypic plasticity → complementarity, facilitation or competition
- ❖ New FSPM called WHEAMM (WHEAt Model for Mixtures)
- ❖ Focus on competition for light and its impact on tillering (branching)



WHEAMM: a new FSPM to study plastic responses to competition for light in wheat cultivar mixtures



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Model validation

- ◆ Another year
- ◆ Another sowing density
- inconclusive results
- possible misspecifications

Thank you for your attention, see you at the poster session!

Simulations with calibrated parameters for genotype Expert in 2019-2020