



## **Addressing optimality principles in DGVMs: Dynamics of Carbon allocation changes**

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DGVMs are designed to reproduce and quantify ecosystem processes. Based on plant functions or species specific parameter sets, the energy, carbon, nitrogen and water cycles of different ecosystems are assessed. These models have been proven to be important tools to investigate ecosystem fluxes as they are derived by plant, site and environmental factors. The general model approach assumes steady state conditions and constant model parameters. Both assumptions, however, are wrong, since:

- (i) No given ecosystem ever is at steady state!
- (ii) Ecosystems have the capability to adapt to changes in growth conditions, e.g. via changes in allocation patterns!

This presentation will give examples how these general failures within current DGVMs may be addressed.