Process-based forest modelling using the medfate and medfateland R packages

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Content and temporal organization

Day 1 (Nov 19th):

Block 1

1.1 Introduction to process-based forest modelling (theory; 30 min)

1.2 Introduction to the *medfate* modeling framework (theory; 30 min)

1.3 Model inputs (practice; 1h)

1.4 Model inputs (exercises; 2h)

1.5 Practice creating inputs with your own data (2h)

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Day 2 (Nov 20th):

Block 2

2.1 Design and formulation of forest water/energy balance in *medfate* (theory; 1h)

2.2 Forest water/energy balance (practice; 1h)

2.3 Forest water/energy balance (exercises; 2h)

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Block 2

2.1 Design and formulation of forest water/energy balance in *medfate* (theory; 1h)

2.2 Forest water/energy balance (practice; 1h)

2.3 Forest water/energy balance (exercises; 2h)

Block 3

3.1 Design and formulation of forest carbon balance and forest dynamics in *medfate* (theory; 1h)

3.2 Forest growth and dynamics (practice; 1h)

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Day 3 (Nov 21st):

Block 3 (cont.)

3.3 Forest growth and dynamics (exercises; 2h)

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Day 3 (Nov 21st):

Block 3 (cont.)

3.3 Forest growth and dynamics (exercises; 2h)

Block 4

4.1 Preparing model inputs and launching landscape/regional simulations using **medfateland** (practice; 1h)

4.2 Large-scale simulations (exercises; 2h)

4.3 Species parameter estimation using **traits4models** (practice; 30 min)

4.4 Closure and feedback (30 min)