People

in Bioinformatics

Biodiversity Informatics

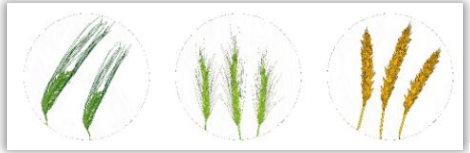
Coordinator: Dr. Uwe Scholz

Systems Analysis and Modelling

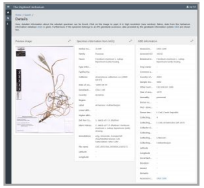
Coordinator: Dr. Jedrzej Szymanski

Genebank Documentation

Dr. Stephan Weise



taxonomy
accessions
information systems
sustainable
georeferences
genetic.resources
service
phenotypic
data
passport
infrastructure
biodiversity
germplasm



European Cooperative Programme for Plant Genetic Resources
ECP/GR

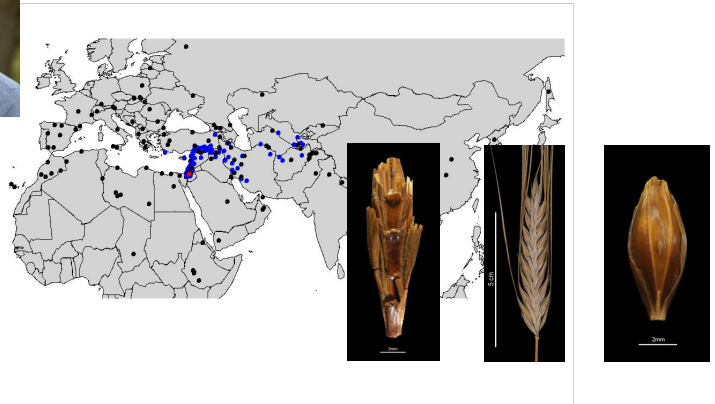
Biodiversity Information Standards
TDWG

GBIF

Domestication Genomics

Dr. Martin Mascher

IPK LEIBNIZ INSTITUTE



Bioinformatics and Information Technology

Dr. Uwe Scholz

DataCite

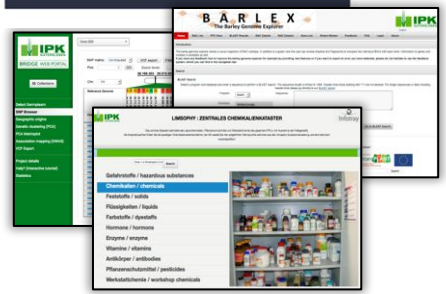
doi

the plant journal

nature SCIENTIFIC DATA

FISH COURSE

Galaxy



Compute power:

11 SMP machines with total:
- 528 physical cores
- 13 TB RAM

4 GPU machines with total:
- 128 physical cores
- 2 TB main RAM
- 4 GPU Controller

1 Slurm Cluster
- 1 Control Node (4 Cores, 64 GB RAM)
- 1 Submission Node (virtual machine with 4 Cores, 16 GB RAM)
- 3 CPU Compute Nodes (total: 84 Cores, 768 GB RAM)
- 2 GPU Compute Nodes (total: 64 Cores, 3 TB RAM, 2 GPU)
- 10Gbit/s Network Fiber Switch

Storage capacity:

Network attached storage capacity: usable up to 760 TB
Storage and archive capacity: 1.5 PB

Network: 2 x 500 Mbit/s internet, 10 Gbit/s internal

Integrated Mechanistic Models

Dr. Mary-Ann Blätke

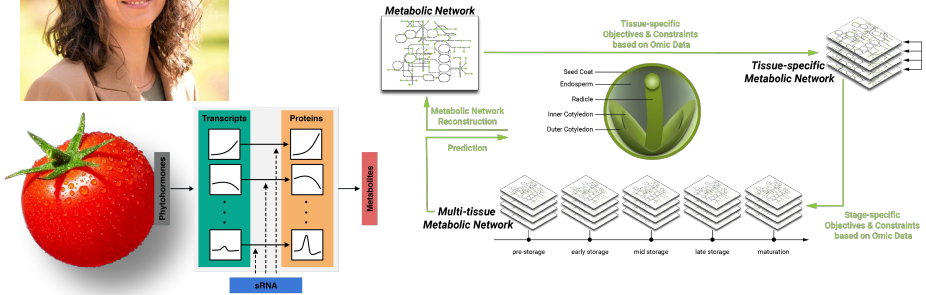
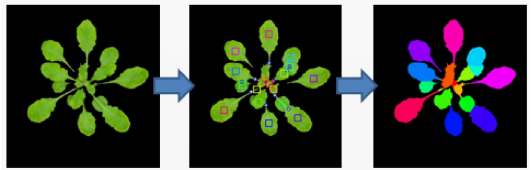
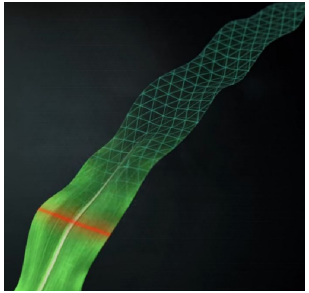


Image Analysis

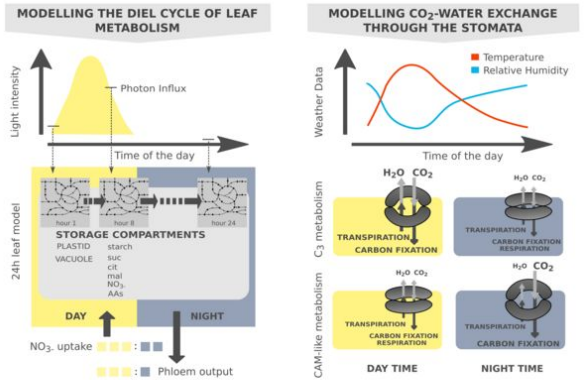
Dr. Evgeny Gladilin





Metabolic Systems Interactions

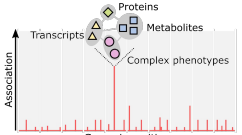
Dr. Nadine Töpfer



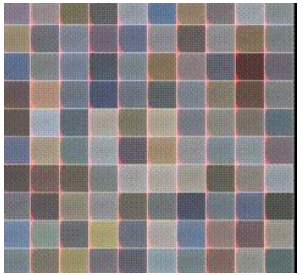
Network Analysis and Modelling

Dr. Jedrzej Szymanski

Population diversity

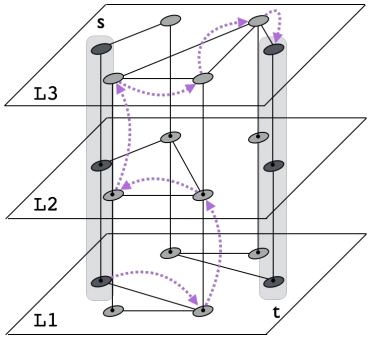


Data Integration

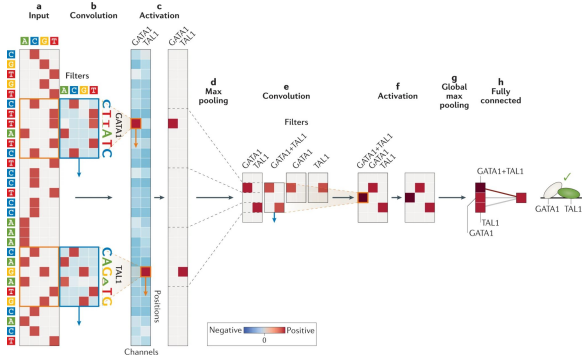


Andrej Karpathy Blog https://karpathy.github.io/

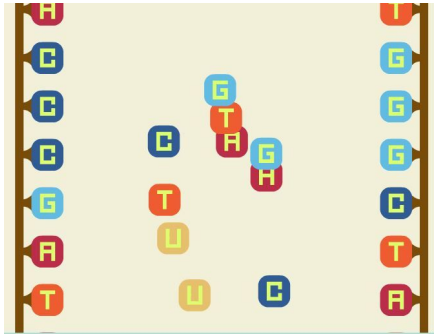
1. Hierarchical Genomic Networks



2. Artificial Intelligence for Natural Systems



3. Molecular Networks as Game Engines



Network Analysis and Modelling

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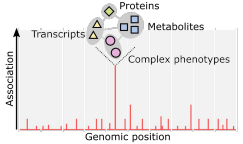
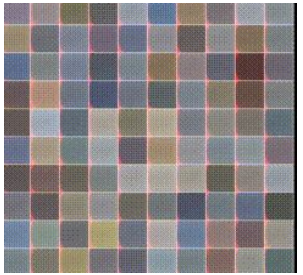


Data Integration



Andrej Karpathy Blog https://karpathy.github.io/

Figures: Eraslan et al. 2019 *Nat Rev Genet*; Berlage 2016; The Double Helix Game

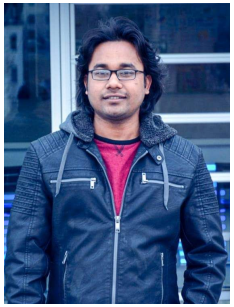
PhD: Dennis Psaroudakis
#Phenomics
#QuantitativeGenetics
#HeatStress
#NetworkAnalysis
#MachineLearning

MSc: Bright Enogieru Osatohanmwen
#QuantitaiveGenetics
#GraphTheory
#Phenomics
#MetabolicNetworks

NETWORK ANALYSIS & MODELLING

PhD: Fritz Forbang Peleke
#DeepLearning
#GenePromoters
#GeneExpression
#SequenceToPhenotype

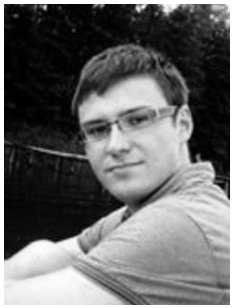
Int: Lea Broschewitz
#GenePromoters
#TranscriptionFactors
#PlantDevelopment
#GeneRegulatoryNetwork



Int: Abul Khayer
#RNAsequencing
#PlantStressResponse
#Statistics

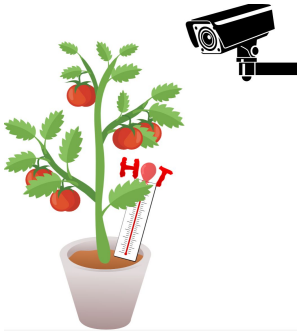
MSc: Daniel Koch
#GameDesign
#GameDev
#MetabolicModelling
#PlantDevelopment

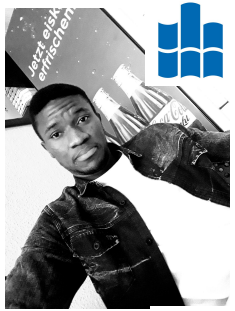
Int: Sarah Becker
#GeneAnnotation
#GeneticVariation
#GeneRegulatoryNetwork



Guest: Dariusz Kruszka
#QuantitativeGenetics
#SpecializedMetabolism
#Lipidomics
#MetabolicModelling
#MachineLearning

PhD: Dennis Psaroudakis
#Phenomics
#QuantitativeGenetics
#HeatStress
#NetworkAnalysis
#MachineLearning





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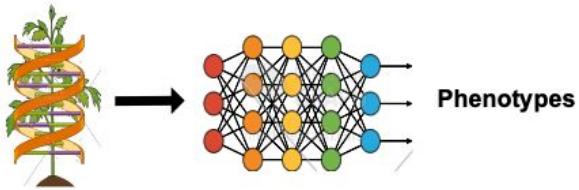

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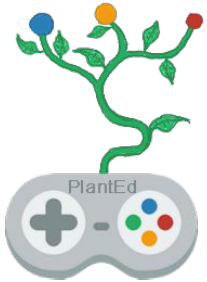

NETWORK ANALYSIS & MODELLING