Genome Model Construction

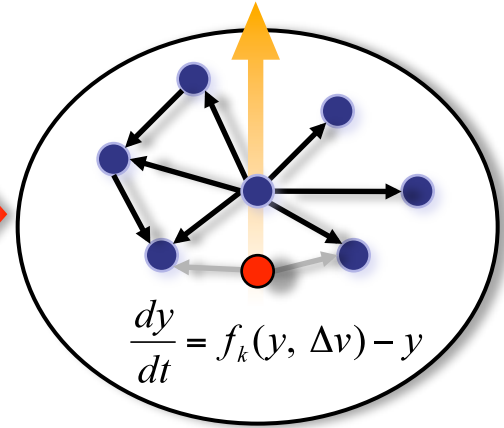

"-Omics" data

Reverse Engineering

Agronomic properties
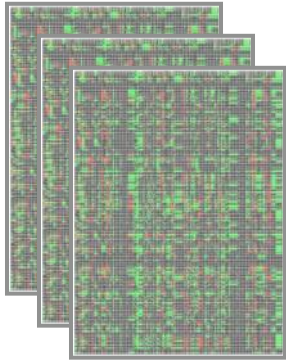
$$\frac{dy}{dt} = f_k(y, \Delta v) - y$$

- Transcriptomics (microarrays)
- Metabolomics (metabolic profiles)
- Phenomics (agronomical properties)

Effective regulatory model

Genome Redesign

Experimental Validation

Compute predicted agronomical properties

Solve gene expresion and metabolic profile in steady-state

Suggested mutation

Multipe-objective optimization

Loop N-times