

**Vitaly Volpert**

CNRS, UNIVERSITY LYON 1

e-mail: [volpert@math.univ-lyon1.fr](mailto:volpert@math.univ-lyon1.fr)

### **Nonlinear dynamics of plant growth**

We model plant growth with free boundary problems where the moving boundary corresponds to the meristem, a narrow layer of proliferating cells. Cell cycle progression and transport of nutrient and metabolites are taken into account. Nonlinear dynamics of plant growth, endogeneous rhythms and branching patterns are discussed.