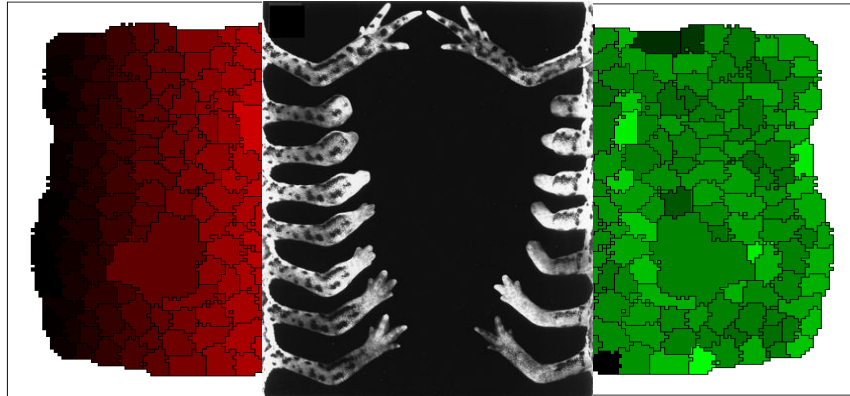


INVITATION TO SEMINAR (SS 2011)
MATHEMATICS OF BIOLOGICAL REGENERATION



OBJECTIVE

Some animals including salamanders are capable of regenerating lost body parts. Humans can regenerate parts of the liver, bone and blood. Are Salamanders and humans relying on the same regeneration mechanisms? Could such mechanisms be triggered in other damaged organs? How is the regeneration process stopped after the lost part has been replaced? Are the involved pattern forming mechanisms the same as those operating during embryogenesis in much smaller tissues? These and many more questions remain mysteries. In this seminar, we focus on selected and well studied examples of organ regeneration in hydra, planaria, salamanders and humans. By means of talks, discussions and computer simulations, key questions and corresponding mathematical models will be introduced.

The seminar is intended for undergraduate and graduate students in mathematics, biology, physics, medical or computer sciences who are interested in this highly interdisciplinary application field.

TIME AND LOCATION

The seminar will take place on 4 **Monday** afternoons **15.00-18.00**:

May 23, June 6, June 20 and July 4

Location: **INF-1096**, Computer Science Dept. of TU Dresden at Nöthnitzer Str. 46

KICKOFF MEETING AND DISTRIBUTION OF TALKS

May 2, 15.00-16.00, INF-1096

ORGANIZERS

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SEMINAR WEBSITE

http://www.tu-dresden.de/zih/lehre/bio/ss2011_sem

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