The stabilisation height of fibre surfaces

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Graduate talk: Thursday Oct 19, 12:15–13:45, Übungsraum 1 Research talk: Friday Oct 20, 10:30–11:30, Seminarraum 2

Graduate talk: An introduction to fibered knots

This talk will be an informal introduction to an important topic in low-dimensional topology, assuming little background.

Research talk: The stabilisation height of fibre surfaces

Fibre surfaces are embedded surfaces with boundary which arise as pages of open books for the three-sphere. The simplest examples are the standard disc and the Hopf bands (embedded annuli with a full twist). Using a special operation called plumbing, fibre surfaces can be glued together to form new ones. Call a fibre surface "stable" if it can be obtained from the disc by iterated plumbing of Hopf bands. The stabilisation height measures (in terms of Hopf plumbing) how far a fibre surface is from being stable. We will show that the stabilisation height is unbounded, even among fibre surfaces of fixed genus. (Joint work with S. Baader.)

These lectures are funded by *Graduiertenschule Mathematisches Insti*tut/Institut für Informatik.

Alle Interessenten sind herzlich eingeladen. gez. S. Durst & M. Kegel