- Name

  FURUTA, Mikio

- Research field

  Topology, Differential geometry

- Key words

  4-dimensional manifold, gauge theory

- Present research

  I am interested in interaction between infinite dimensional geometry and finite dimensional geometry It is known that one can define invariants of 4-dimensional manifolds using partial differential equations related to gauge theory. One of my motivations for my study is to understand these invariants from the view point of infinite dimensional geometry.

- Notice for the students

  1. Distinguish between what you know and what you do not know.
  2. Check the definitions of relevant concepts when you find you do not understand something.
  3. Distinguish between trivial statements and nontrivial statements.
  4. Try to make examples when you encounter a new definition or a new theorem.
  5. It is often more efficient to use a pen rather than to use a keyboard.
  6. Always try to grasp the whole picture.
  7. Start with a small and concrete problem.
  8. Do not hesitate to be amazed at what is amazing.

cf. (Japanese articles)

https://www.ms.u-tokyo.ac.jp/ furuta/advice.pdf

https://www.ms.u-tokyo.ac.jp/kyoumu/11856a071aa06cce122ee117b45c2a3a3c7732be.pdf

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