The Plateau problem – old and new

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The poster describes joint work with Yangqin Fang

The Plateau problem is about finding a surface that spans a given boundary and has the minimal area. Precise formulation of the problem depends on the meaning of the words *surface*, *spans*, *boundary*, and *area*. The poster describes the classical formulations given by Reifenberg and Almgren and also the more recent approaches suggested by David and by Harrison and Pugh. It contains also a general existence result obtained recently by the author and Yangqin Fang.

References

[1] Y. Fang and S. Kolasiński, *Existence of solutions to a general geometric elliptic variational problem*, ArXiv e-prints, April 2017