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Takahiro Yamamoto* (yama.t@ip.kyusan-u.ac.jp), 3-1 Matsukadai 2-chome, Higashiku, Fukuoka, 813-8503, Japan. *Topology of the singular value sets of stable maps between surfaces*. Preliminary report.

In this talk, all maps and manifolds are class of C^∞ . Let M and N be connected, orientable and closed surfaces, and $f: M \rightarrow N$ be a stable map in Whitney's sense. Then, locally f has fold and cusp singularities and globally the singular value set $f(S(f))$ is curves with isolated cusps and nodes. For a stable map $f: M \rightarrow N$, denote by $c(f)$ and $n(f)$ the numbers of cusps and nodes of the singular value set $f(S(f))$ respectively. We determine the minimal number $c+n$ among the singular value set of degree d stable maps $M \rightarrow N$ whose contours consist of one component. (Received December 05, 2011)