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J. Inoguchi, K. Kajiwara* (kaji@imi.kyushu-u.ac.jp), **K. T. Miura, M. Sato, W. K. Schief** and **Y. Shimizu**. *Log-Aesthetic Curves in Industrial Design as a Similarity Geometric Analog of Euler's Elastic Curves*.

We consider a class of plane curves called the log-aesthetic curves and their generalization which is used in the industrial design. We investigate those curves under the similarity geometry and characterize them as stationary integrable flow on plane curves which is governed by the Burgers equation. We propose a variational formulation of those curves whose Euler-Lagrange equation yields the stationary Burgers equation. Our result suggests that the log-aesthetic curves and their generalization can be regarded as the similarity geometric analog of Euler's elastic curves. (Received September 22, 2017)