

6. A model of meandering channel for “Kyokusui-no-En” poetry party

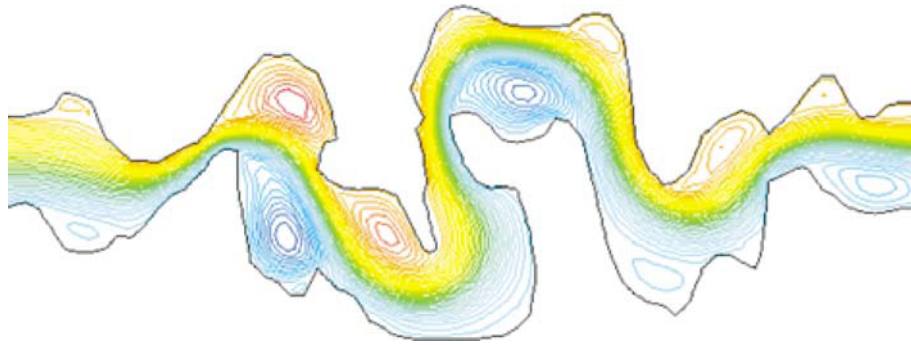
Nakayama, Y.¹⁾, Aoki, K.²⁾, Oki, M.³⁾ and Wei, Q-D.⁴⁾

1) Future Technology Research Institute, 3-56-2 Higashi-Oizumi, Nerima-ku, Tokyo 178-0063, Japan

2) School of Engineering, Tokai University, 1117 Kitakaname, Hiratsuka-shi, Kanagawa, 259-1292, Japan

3) School of High-Technology for Human Welfare, Tokai University, 317 Nishino, Numazu-shi, Shizuoka 410-0395, Japan

4) Department of Mechanics, Peking University, Beijing, 100871, China



Contours of stream function



Contours of vorticity



Experimental result (Surface floating tracer method)

Poetry party by meandering stream (Kyokusui-no-En) is a ceremony where poets sitting alternately on the both banks of a garden-stream are expected to write a poem before a drink-filled cup coming from upstream passes by. The poets are allowed to pick up the cup to drink only by finishing a poem.

This model of meandering channel must have the characteristics that the cup flowing from upstream passes through a random pass and stagnates at unexpected places. Very interesting flow with vortices, separation and reverse flow occurs through this channel combined with the contracted, enlarged and curved parts. This flow pattern has been checked by numerical simulation and visualization.