Long term measurement of the current at the bay head in the Suruga Bay, Japan. part 2

*Takaaki Katsumata^{1,4}, Masato Niki², Akihiko Tanaka¹, Hiroyuki Tan^{1,3}, Kyoko Takashima², Takashige Sugimoto

1. Liberal Arts Education Center, Shimizu Campus, Tokai University., 2. School of Marine Science and Technology, Tokai University, 3. Japan Unmanned Vehicle exploration Agency, 4. NPO, the association for the environmental conservation of the ocean

The Suruga Bay is located on a southern coast in the main island of Japan, and the bay facing to the Kuroshio front. Fishery in the bay are strongly influenced by a variables of rivers inflows and intruding of Kuroshio water (Sugimoto et al., 2009; Tanaka et al.,2009; Katsumata, 2016). But we have a little knowledge for these variations. Therefore, we measured the profile of the current by ferry mounted ADCP, at the line of the "Suruga Bay Ferry" cruise cross the bay head from a western coast to eastern coast, i.e., Shimizu Port to Toi Port, since 2008. We currently continuing measuring the current in the bay about near 10 years. The anticlockwise circulation at the bay head of the Suruga Bay has at least 100 m thick from surface layer. The circulation in bay head has clearly seasonal variation, it is relate difference of stratified period and non-stratified one. This current data include the period of typical large meander of Kuroshio.

Keywords: Ferry mount ADCP, Suruga Bay, typical large meander path of Kuroshio