Application of 2-component Excitation Sompi Method to an Analysis of Polar Motion

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We have developed a method for non-stationary time series analysis, Excitation Sompi method [Yokoyama et al., 1997, 1999, 2000]. In this paper, the method was extended to be that for two-component data: complex expression of the two-component data was used, and a basic equation in a form of eigen equation of Hermitian matrix was derived. With the extension, the method is ready to be applied to a problems of the polar motion. A detailed procedure of the application is also demonstrated.