1147-11-613 **Toshiki Matsusaka*** (toshikimatsusaka@gmail.com). Lifting maps for polyharmonic Maass forms.

Higher Laurent coefficients of the real analytic Eisenstein series at s=1 are annihilated by a number of iterations of the action of the hyperbolic Laplace operator. Focusing on this property, Lagarias and Rhoades introduced a new space of polyharmonic Maass forms in 2016. This gives an extension of generalized mock modular forms appeared in Duke-Imamoglu-Toth's work on traces of cycle integrals of the j function. In this talk, we introduce polyharmonic weak Maass forms more generally, and extend DIT's results. (Received January 27, 2019)