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Shunsuke Yamana* (s718.yamana@gmail.com), Department of Mathematics, Kyoto University, Kitashirakawa Sakyo-ku, Kyoto, 606-8502, Japan. *4 variable triple product p-adic series*. Preliminary report.

After Harris-Tilouine constructed one-variable p-adic triple product L-functions, Darmon-Rotger constructed three-variable p-adic triple product L-functions for three Hida families of elliptic newforms, using Ichino's formula. It interpolates central critical L-values, and outside the region of interpolation its special values are related to the image of Gross-Schoen cycles under the p-adic Abel-Jacobi map. This construction was refined by Greenberg-Seveso, Ming-Lun Hsieh, Isao Ishikawa, Andreatta-Iovita, and so on. In this talk I will add the cyclotomic variable and construct 4 variable p-adic triple product L-functions, which interpolate all critical L-values in the balanced case, using Garrett's integral representation. A sequel to this talk will be given in SSA1. This is a joint work with Ming-Lun Hsieh. (Received January 23, 2019)