Shunsuke Yamana* (s718.yamana@gmail.com), Department of mathematics, Kyoto University, Kitashirakawa Oiwake-cho, Sakyoku, Kyoto, Kyoto 606-8502, Japan. Towards the p-adic Gross-Zagier formula for triple product L-series. Preliminary report.

Benedict Gross and Stephen Kudla conjectured a relation between central derivatives of triple product L-series of a triple of elliptic curves and the Beilinson height of diagonal cycles. This conjecture was largely proved by Xinyi Yuan, Shou-Wu Zhang and Wei Zhang. I will give a precise formulation of its p-adic analogue, which relates cyclotomic central derivatives of p-adic triple product L-series to Nekovar’s p-adic heights of diagonal cycles. This is a sequel to my talk given in SS2A and is a joint work with Ming-Lun Hsieh. (Received January 23, 2019)