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**Bo-hyun None Kwon\*** (bortire74@gmail.com), 109-304, Wolgok-ro 14 Road 26, Seongbuk-gu, Seoul, 02794, South Korea. *A generalization of the rectangle condition.*

In this talk, we define the connecting rectangle condition to check whether or not a Heegaard splitting is strongly irreducible which is a variation of the rectangle condition by Casson and Gordon. Then we define a general version of the rectangle condition. Moreover, with a similar condition defined on an  $n$ -bridge decomposition, we can check whether or not the Hempel distance of an  $n$ -bridge decomposition is greater than or equal to two. We would give an interesting example on  $n$ -bridge decomposition of knots which satisfy the connecting rectangle condition by using the train track argument. (Received September 17, 2018)