The set of rational points of a K3 surface is conjectured to be dense if it is not empty. In my talk, I will firstly recall Skorobogatov's approach by using the Brauer-Manin obstruction to the Hasse principle and to weak approximation. Then I will focus on a special case: elliptic fibration case, and talk about my new topological method: relative Pontryagin duality and relative arithmetic duality.