Transl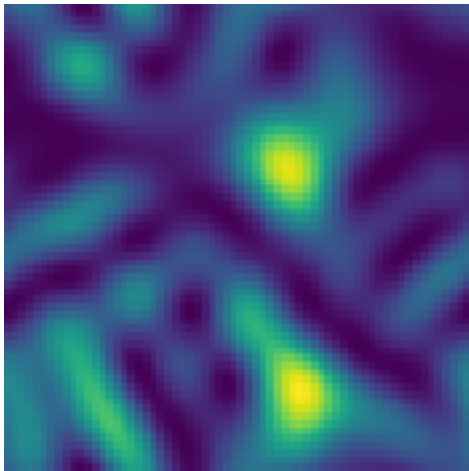ient statistic $Z(x, y)^2$ Proper statistic $S(x, y)^2$