

1135-03-1643 **Jin Du*** (jdu8@uic.edu), Chicago, IL. *Diamond, Scales and SCH down to \aleph_{ω^2} .*

I will discuss a paper I submitted last year.

Gitik and Rinot proved assuming the existence of a supercompact that it is consistent to have a strong limit cardinal κ such that $2^\kappa = \kappa^+$, there is a very good scale at κ , and \diamond fails along some reflecting stationary subset of $\kappa^+ \cap \text{cof}(\omega)$. In this paper, we force over Gitik and Rinot's model but with a modification of Gitik-Sharon diagonal Prikry forcing to get this result for $\kappa = \aleph_{\omega^2}$. (Received September 24, 2017)