

February 17, 2022

To :

From : Jin-Hong Park

website : <https://arxiv.org/abs/2202.07224v1>

Subject : Evidence for a spinon Kondo effect in cobalt atoms on single-layer 1T-TaSe₂ by Michael F. Crommie of arXiv:2202.07224

The authors consider a spinon Kondo effect in Co tips on single layer 1T-TaSe₂

To do :

1. How can we understand the charge spin separation in two-dimensional system of 1T-TaSe₂?
2. What is the connection between the CDW (Star of David) and spinon physics? a) The charge gap is generated by formation of CDW and the spinon is gapless.
3. What is difference between spinon Kondo effect and ordinary Kondo effect?
4. How to calculate the Kondo resonance peak?

Jin-Hong Park
Seoburo 2066 Department of Physics
Sungkyunkwan University
Suwon, Republic of Korea 16419