Gabriel Enrique Sosa Castillo\* (gsosacastillo@colgate.edu), Kuei-Nuan Lin and Sevi Kara. Multi-Rees algebras of strongly stable ideals.

We provide a combinatorial proof that the multi-Rees algebra of strongly stable (or Borel) ideals is of fiber type.

Then, through examples, we determine conditions for three families of parameters (number of ideals, number of Borel generators for each ideal and degrees of such Borel generators) for which the multi-Rees algebra, of any collection of strongly stable ideals satisfying these parameters, could always be Koszul.

Finally, we prove that the multi-Rees algebra of two strongly stable ideals each with two quadratic generators is Koszul. (Received March 09, 2021)