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Gabriel Sosa Castillo* (gsosacastillo@colgate.edu), **Selvi Kara** and **Kuei-Nuan Lin**. *The Koszul property of Rees and multiRees algebras of strongly stable ideals.*

In her paper “*Toric Rings Generated by Special Set of Monomials*”, published in 1999, Emmanuela DeNegri proved that the toric ring corresponding to the Special Fiber of the Rees algebra of a Principal Strongly Stable ideal is a Koszul Cohen-Macaulay Normal Domain.

In the 22 years since then several results have allowed for necessary and sufficient conditions that allow a Rees, or Multi-Rees algebra, to satisfy the Koszul property.

In this talk, we will present a brief historical summary of results related to determining the Koszulness of a Rees/multi-Rees algebra of strongly stable ideals, along with necessary and sufficient conditions based on the number of ideals, the number of strongly stable generators of each ideal (and their respective degrees), and the conjectures still open regarding this problem.

The content presented includes past, current and future(?) joint work with Michael DiPasquale, Chris Francisco, Selvi Kara, Kuei-Nuan Lin, Matthew Mastroeni, Jeffrey Mermin and Jay Schweig. (Received September 21, 2021)