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**Kuei-Nuan Lin\*** (kul20@psu.edu) and **Yi-Huang Shen**. *Blow-up algebras of rational normal scrolls and their secant varieties.*

We show that the special fiber rings of general rational normal scrolls are Cohen–Macaulay and compute their Castelnuovo–Mumford regularities. Then we study the secant varieties of balanced rational normal scrolls. We describe the defining equations of their associated Rees rings and compute the Castelnuovo–Mumford regularities of their special fiber rings. (Received July 27, 2020)