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Daniel K. Nakano* (nakano@math.uga.edu), **Kent B. Vashaw** and **Milen T. Yakimov**.
Noncommutative Tensor Triangular Geometry.

In this talk, I will show how to develop a general noncommutative version of Balmer's tensor triangular geometry that is applicable to arbitrary monoidal triangulated categories ($M\Delta C$). Insights from noncommutative ring theory are used to obtain a framework for prime, semiprime, and completely prime (thick) ideals of an $M\Delta C$, \mathbf{K} , and then to associate to \mathbf{K} a topological space—the Balmer spectrum $\mathrm{Spc} \mathbf{K}$.

We develop a general framework for (noncommutative) support data, coming in three different flavors, and show that $\mathrm{Spc} \mathbf{K}$ is a universal terminal object for the first two notions (support and weak support). The first two types of support data are then used in a theorem that gives a method for the explicit classification of the thick (two-sided) ideals and the Balmer spectrum of an $M\Delta C$. The third type (quasi support) is used in another theorem that provides a method for the explicit classification of the thick right ideals of \mathbf{K} , which in turn can be applied to classify the thick two-sided ideals and $\mathrm{Spc} \mathbf{K}$.

This is joint and ongoing work with Milen Yakimov and Kent Vashaw (Received August 25, 2020)