



Leibniz
Universität
Hannover

Oberseminar

Institut für Algebraische Geometrie

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Very ample line bundles on weighted projective spaces and weighted blowups

On a weighted projective space, ample line bundles are given by $\mathcal{O}(kd)$ where k is a positive integer and d is the least common multiple of the weights. On the other hand, determining which line bundles are very ample is a delicate problem. We give various sharp criteria describing the integers k such that $\mathcal{O}(kd)$ is very ample. As an example, if the weights are pairwise coprime, then $\mathcal{O}(d)$ is always very ample, which implies that general smooth well-formed weighted hypersurfaces are simply connected. We also treat weighted blowups, relative very ampleness, projective normality and generation in degree 1 of Veronese subrings. This is joint work with Stevell Muller, arXiv:2510.03036.

Donnerstag, 16.04.2026, 16:30 - 17:30, F142.

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Alle Interessierten sind herzlich eingeladen.