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**Alexander Nagel** and **Malabika Pramanik\*** (malabika@math.ubc.ca). *On geometric and computational aspects of Bergman kernel estimates.*

The talk consists of two parts, with the common theme of Bergman kernel estimation.

(a) If a proper monomial map carries a complex domain  $\Omega_1 \subseteq \mathbb{C}^n$  onto  $\Omega_2 \subseteq \mathbb{C}^n$ , how are the Bergman spaces of  $\Omega_1$  and  $\Omega_2$  related? We will discuss a structure theorem, with applications.

(b) Given a convex set  $\Sigma \subseteq \mathbb{R}^n$ , let  $T_\Sigma \subseteq \mathbb{C}^n$  denote the tube domain over  $\Sigma$ . We will explore the connection of diagonal estimates for the Bergman kernel of  $T_\Sigma$  with certain caps of  $\Sigma$  of minimal volume. (Received September 16, 2019)