Kubota-type formulas and supports of mixed measures

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Motivated by a problem on convex functions, we confirm a special case of Schneider's conjecture on the support of mixed area measures. Our proof introduces a new Kubota-type formula, which involves integration over linear subspaces that contain a fixed 1-dimensional subspace. We then transfer these results to the analytic setting, where we obtain corresponding statements for (conjugate) mixed Monge–Ampère measures of convex functions and thereby answer an open question on functional intrinsic volumes.

Joint work with Daniel Hug and Jacopo Ulivelli