MINH BUI, North Carolina State University

On sums and convex combinations of projectors onto convex sets

The projector onto the Minkowski sum of closed convex sets is generally not equal to the sum of individual projectors. In this talk, we provide a complete answer to the question of characterizing the instances where such an equality holds. Our results unify and extend the case of linear subspaces and Zarantonello's results for projectors onto cones. The question "When is a convex average of projectors is a projector?" is also discussed. In addition, we present the partial sum property for projectors onto convex cones as well as the univariate case. This talk is based on joint work with Heinz Bauschke and Xianfu Wang.