Heinz H. Bauschke, Minh N. Bui* (nhutminh.bui@alumni.ubc.ca) and Xianfu Wang. On the sum of projectors onto convex sets.

The projectors 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. We establish the partial sum property for projectors onto convex cones, and we also present various examples as well as a detailed analysis in the univariate case. This talk is based on a joint work with Heinz Bauschke and Xianfu Wang. (Received February 06, 2018)