## **BRENT PYM**, McGill University Beauville-Bogomolov-Weinstein splitting for Poisson varieties

The celebrated Beauville-Bogomolov and Weinstein decomposition theorems explain that certain geometries can be "split" as a product of smaller-dimensional geometries of the same type: the former is a global splitting for compact Kähler manifolds with trivial canonical class, while the latter is a local splitting for Poisson manifolds near a point on a symplectic leaf. I will describe a sort of fibre product of these results, governing the structure of complex projective Poisson manifolds. It shows, for instance, that after passing to an étale cover, a projective Poisson variety with a simply connected compact symplectic leaf splits as a product of said leaf and a projective Poisson variety containing a point where its Poisson bracket vanishes. The proof combines results from Hodge theory and holomorphic foliation theory with a recent notion of "subcalibations" for Poisson manifolds due to Frejlich and Mărcut in the differentiable setting. This talk is based on joint work with Stéphane Druel, Jorge Vitório Pereira and Frédéric Touzet.