

## **Geometric structures on some spaces of stability conditions**

J. Stoppa  
(Università degli Studi di Pavia)

There is an expectation, due to Bridgeland, that (open subsets of) certain spaces of stability conditions should come with additional geometric structures such as that of a Frobenius manifold. I will discuss some results in the context of categories admitting a finite length heart and with well-defined Donaldson-Thomas theory. These define natural formal families of infinite-dimensional Frobenius type and CV-structures in the sense of C. Hertling. A convergence result can be proved for the latter. For a class of examples (including  $A_n$  quivers) the choice of a special collection of objects in the category reduces the structure to a genuine, finite dimensional Frobenius manifold.

Joint work (partially in progress) with A. Barbieri and with T. Sutherland.