

# On the classification of Kontsevich formality maps

Sergei Merkulov  
Université de Luxembourg

## **Abstract**

We discuss the homotopy theory of the wheeled prop controlling Poisson structures on formal graded finite-dimensional manifolds and prove, in particular, that Grothendieck–Teichmüller group acts on that wheeled prop faithfully and homotopy non-trivially. Next we apply this homotopy theory to the study of the deformation complex of an arbitrary Maxim Kontsevich formality map and compute the full cohomology group of that deformation complex in terms of the cohomology of a certain graph complex.