

## Characteristic classes of smooth fibrations

**Abstract:** The main aim of this talk is to find nontrivial elements in  $H^*(B_G)$ , where  $G$  is the group of diffeomorphisms (symplectomorphisms) of a smooth (symplectic) manifold  $M$ . They will be obtained as fiber integrals of monomials in Pontriagin (Chern) classes of the bundle tangent to the fibers of the universal fibration

$$M \rightarrow M_G \rightarrow B_G.$$

I will provide explicit computations for  $M$  being a symplectic toric variety.