

Bibliographical Comments on Part II

The notion of a right module over an operad is introduced in Smirnov's papers [56, 57] as a left coefficient for the operadic version of the cotriple construction of Beck [3] and May [47]. But, as far as we know, the first thorough studies of categories of modules over operads appear in [11] and [54]. The connection between modules over operads and other classical structures, like Γ -objects, appears in [33].

The objective of the work [11], published in [12, 13], is to prove structure and classification results for formal groups over operads. The symmetric monoidal category of right modules over operads is introduced as a background for the operadic generalization of the Hopf algebra of differential operators of a formal group.

In [54], the operadic cotriple construction occurs as a tool to compute the homotopy of moduli spaces of \mathbf{R} -algebra structures, for a given operad \mathbf{R} .

The relative composition product $\circ_{\mathbf{R}}$ is also introduced in the papers [56, 57]. The functor $S_{\mathbf{R}}(M)$ associated to a right module over an operad \mathbf{R} is defined in [54] as a particular case of the relative composition product $M \circ_{\mathbf{R}} N$. The relative composition product $M \circ_{\mathbf{R}} N$ is used in [33], together with endomorphism operads of right \mathbf{R} -modules, in order to define generalized Morita equivalences in the context of operads.

In §5, §6, §7 and §9, we essentially unify results of the literature. The only original idea is to identify the relative composition product $M \circ_{\mathbf{R}} N$ with a particular case of a functor of the form $S_{\mathbf{R}}(M, N)$ rather than the contrary. The statements of §8 and §10 are new.