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*A BV structure on the Hochschild cohomology of truncated polynomials*

I will talk about the concrete Batalin–Vilkovisky algebra structure on  $HH^*(C^*(CP^n); C^*(CP^n))$ , the Hochschild cohomology of the cochain algebra of the complex projective spaces, and its relation with the loop homology,  $\mathbb{H}_*(LCP^n)$  with various coefficients. In a very special case when  $M = CP^1 = S^2$ , it disproves a conjecture that the BV structures on both of them can be identified, even though the commutative ring structures do.