

**“ Hopf algebras and graph complexes from a
Feynman perspective “**

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Abstract:

We will report on a recent paper with Imma Galvez-Carillo and Andy Tonks on Hopf algebras. After presenting the general theorems, we will illustrate them using the examples of Goncharov and Connes-Kreimer in their graphical notation. These illustrate and reflect the concepts and difficulties of the constructions. A source for these examples are Feynman categories. In this theory, there are decorations (joint work with Jason Lucas) which yield graph complexes reflecting the geometries of Kontsevich. If time permits, we will comment cubical structures working in the background.