

OGRePy: Object-Oriented General Relativity in Python

Saturday 1 November 2025 15:35 (15 minutes)

I will present a detailed introduction to my Python package, OGRePy: An Object-Oriented General Relativity Package for Python, which will be of great interest to anyone doing research in general relativity. I will demonstrate the package's usage and features, including its ability to calculate arbitrary tensor formulas involving any combination of addition, multiplication, trace, contraction, and partial and covariant derivatives, while automatically figuring out the proper index configuration and coordinate system to use for each tensor. I will discuss how this package has been used in research so far, as well as future plans.

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