EUROPEAN AI FOR
FUNDAMENTAL PHYSICS
CONFERENCE
EuCAIFCon 2025

Contribution ID: **175**   Type: **Poster** + **Flashtalk**

Agent-based code generation for the Gammapy framework

Software code generation using Large Language Models (LLMs) is one the most successful application of the modern AI. Foundational models are very efficient when applied to popular frameworks and libraries, which benefit from documentation, code examples, and strong community support. However, many specialized scientific libraries lack these resources and often have unstable programming interfaces under active development, making it challenging for models trained on limited or outdated data. In this work, we address these issues for the Gammapy library by developing an agent capable of writing, executing, and validating code in a specialized environment. We present a web-based demo that has been tested with early users to gather feedback. This contribution outlines our progress, describes our approach, and discusses our future plans

AI keywords

code generation; code validation; agents; LLM

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Track Classification: Inference & Uncertainty