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Recent development of NeatIBP

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The Feynman integral is a critical object in quantum field theory. It is very important in high energy physics. The integration-by-parts (IBP) reduction is one of the bottle-neck steps in the evaluation of multi-loop Feynman integrals. NeatIBP is a program based on the syzygy method of IBP reduction. It generates much smaller sized IBP system compared to traditional Laporta's algorithm. This helps us to reduce the computation cost of IBP reduction. In this talk, we will present the recent development and progress of NeatIBP since its last publication. We will introduce new useful features in the new versions of NeatIBP. These new features include the automated interface with the popular Feynman integral reduction software Kira.

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