

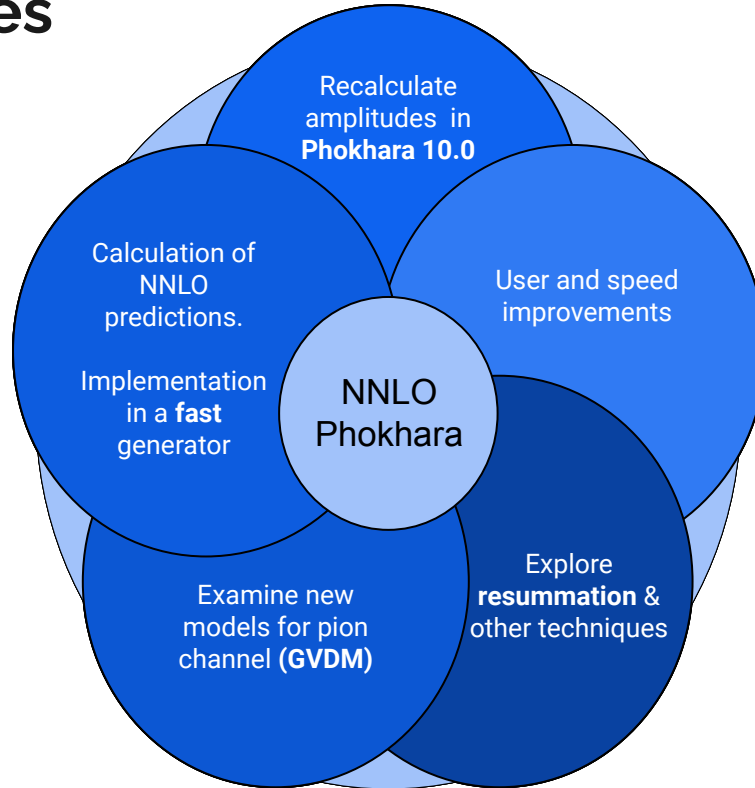


Update on NNLO Phokhara

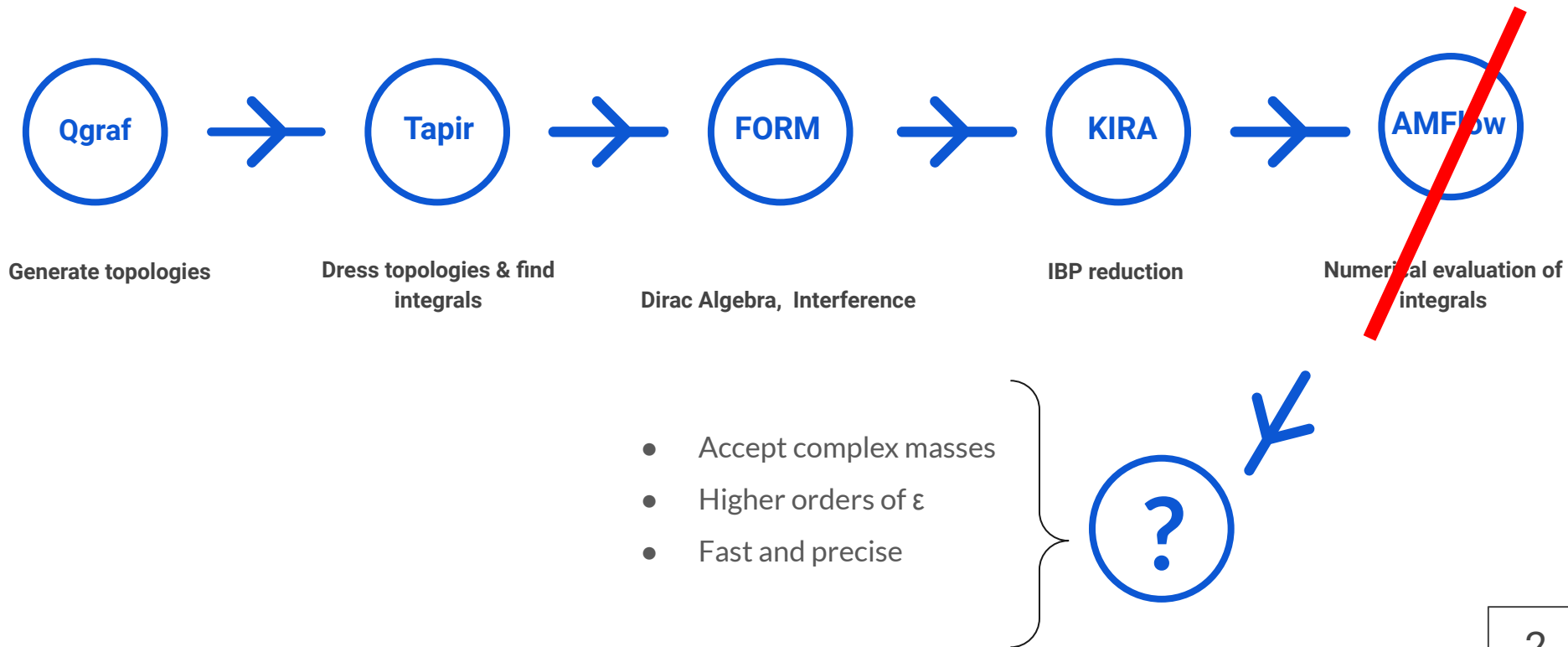
Pau Petit Rosàs

In collaboration with W. Torres Bobadilla

Planned updates



The Workflow

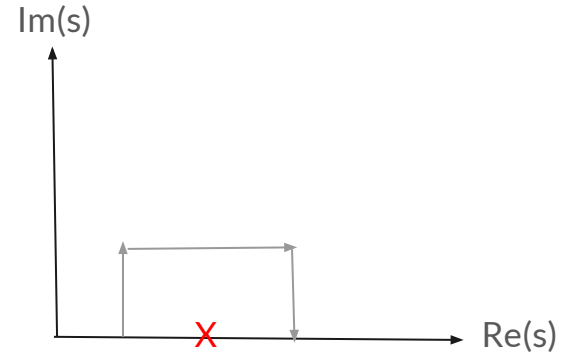


The DiffExp method

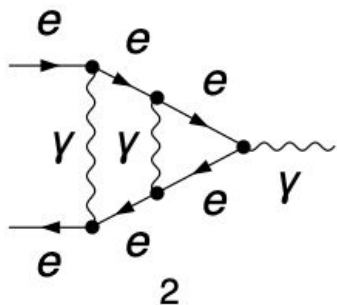


$$d\vec{J} = \epsilon \sum_{i=1}^n A_i d\log(\alpha_i) \vec{J}$$

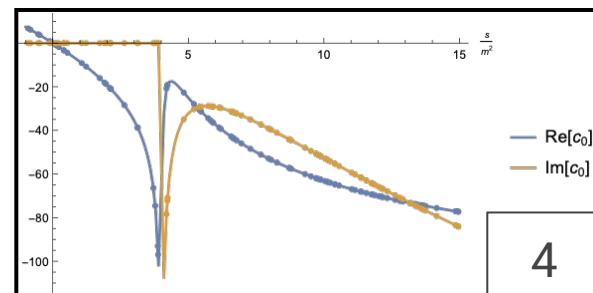
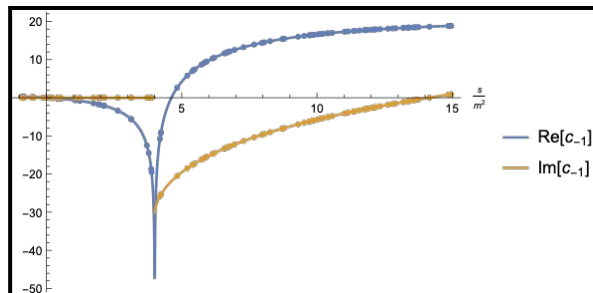
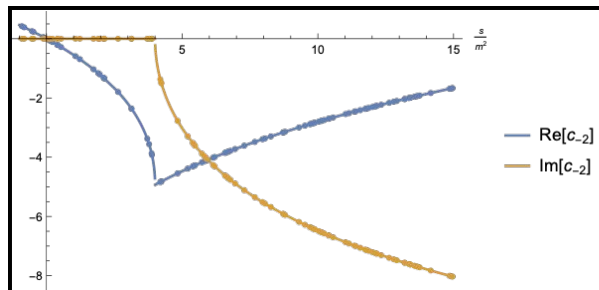
+



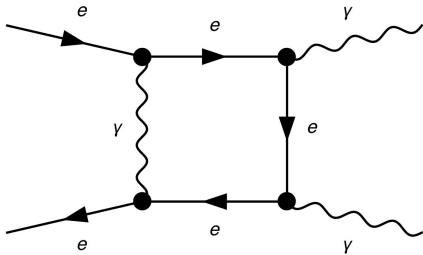
Some benchmarks...



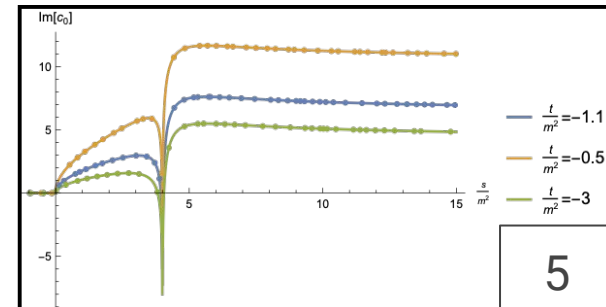
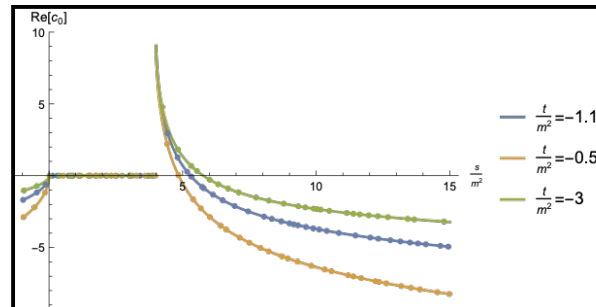
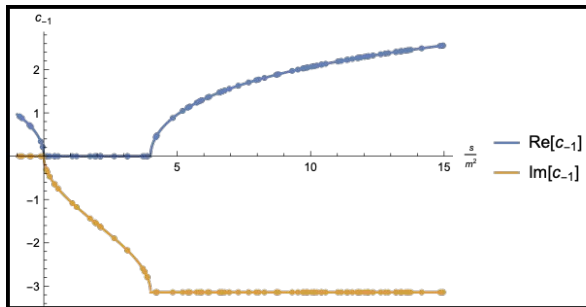
- 10 MIs, 5 orders of ϵ
- $O(\mu s)$ per phase-space point
- 7+ significant figures of precision



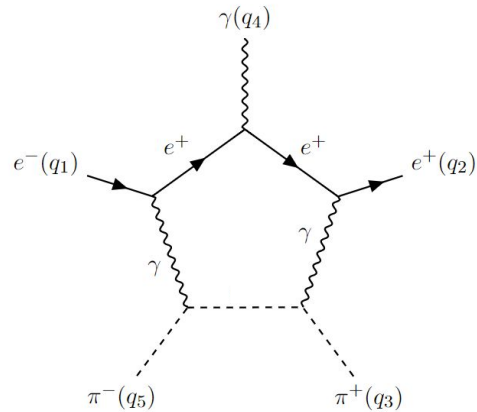
Some benchmarks...



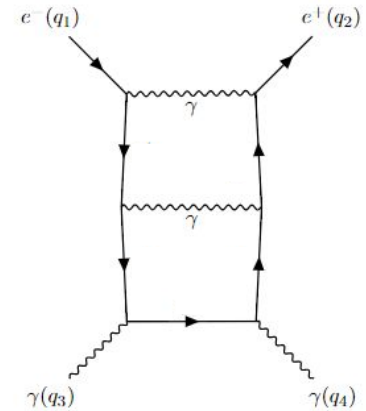
- 8 MIs, 5 orders of ϵ
- $O(ms)$ per phase-space point
- 7+ significant figures of precision



Outlook



- Building DE with 2 internal masses



- Bottleneck of IBPs
- Look at NeatIBP, RatTracer, Kira 3.0