Local loop-level recursion for nonplanar theories

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SAGEX
Scattering Amplitudes:
from Geometry to Experiment

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Background

Ingrid Angélica Vazquez Holm from Norway

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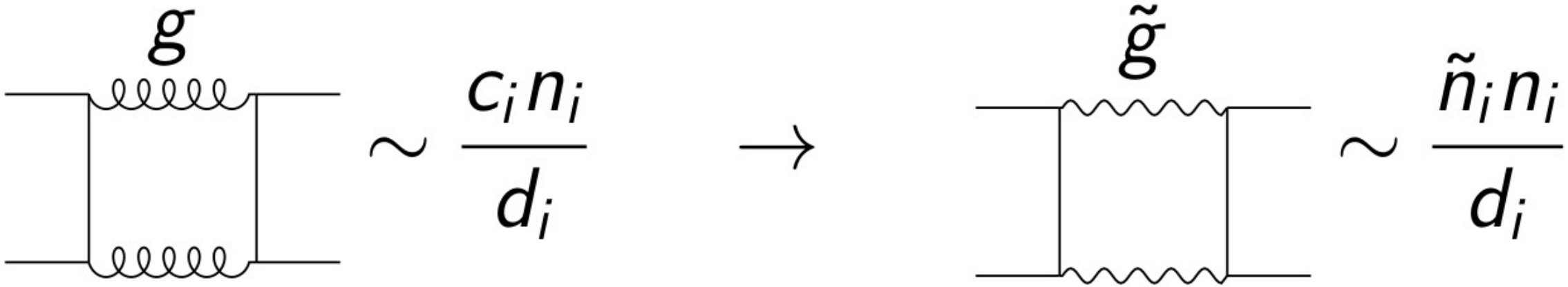
Master’s in Theoretical Physics at the University of Oslo
Gaussian Processes for Supersymmetric cross sections

Local loop-level recursion for nonplanar theories

Recursion relations at loop level for gravity theories (using color kinematics)



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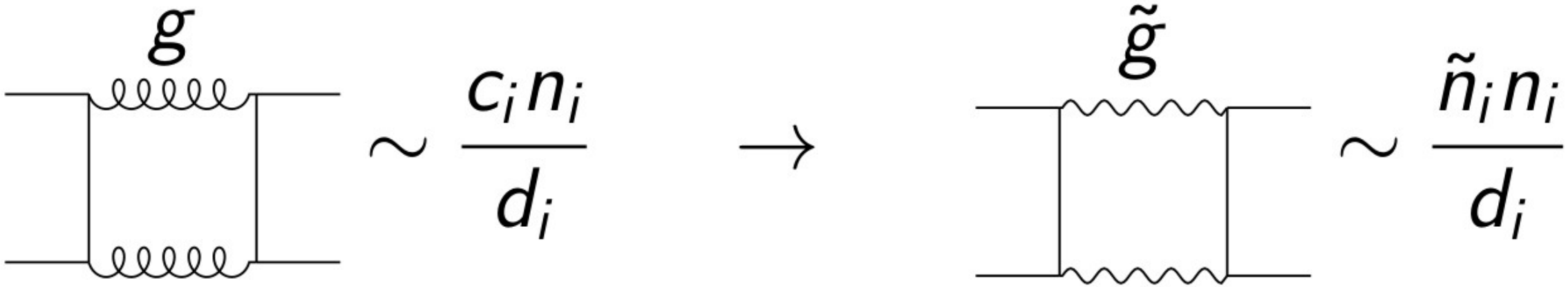
Recursion relations at loop level for gravity theories (using color kinematics)

Already accomplished: Amplitude dressing for 4-point massive scalars at 1-loop in QCD that satifies color kinematics



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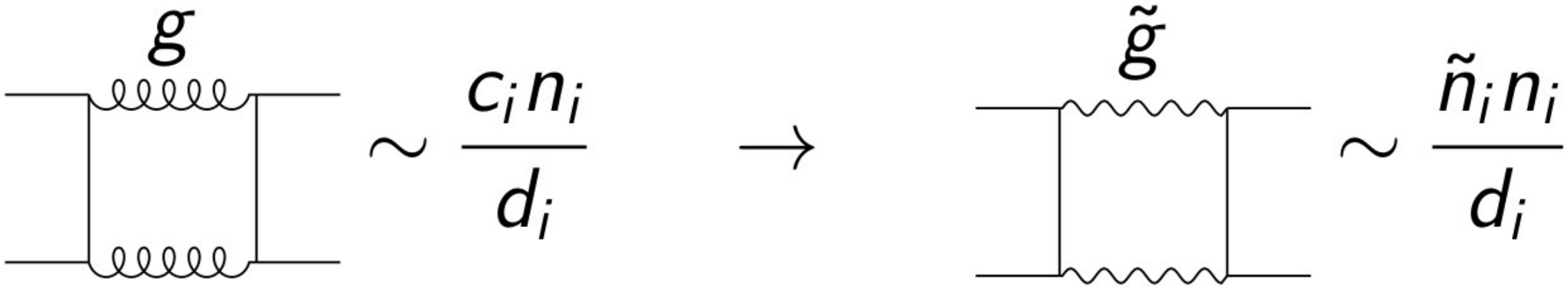
Recursion relations at loop level for gravity theories (using color kinematics)

Already accomplished: Amplitude dressing for 4-point massive scalars at 1-loop in QCD that satifies color kinematics

In progress: Amplitude dressing for massive scalars with an emitted gluon, to model binary black holes with gravitational radiation



Interactions

ESR’s at Network events, schools and conferences, and on Whatsapp

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Young Researcher Committee meetings and exhibition meetings

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Other network members at events and conferences

Training and secondment

Training

Solvay Institutes Brussels-Paris-Amsterdam-Geneva Doctoral School in *Quantum Field Theory, Strings and Gravity*

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SAGEx DESY Summer School in *Gauge and String Theory*

SAGEx Soft Skills and Outreach training in Durham and DESY

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Wolfram

October-December 2020, developement of new functions and algorithms related to symbolic integration in Mathematica.

Outreach

Twitter account March-April 2019

Outreach

Twitter account March-April 2019

SAGEx exhibition planning

Outreach

Twitter account March-April 2019

SAGEx exhibition planning

Video project with Ekaterina Eremenko

Future plans

A PhD in Theoretical Physics, and work experience from Wolfram

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Presentation and communication skills

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Postdoctoral appointment after SAGEx

Thank you for your attention!