LUND UNIVERSITY

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Lund Phenomenology – Introduction and Overview

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To be followed by Lisa Carloni
Ilaria Jemos
Jie Lu

Personnel

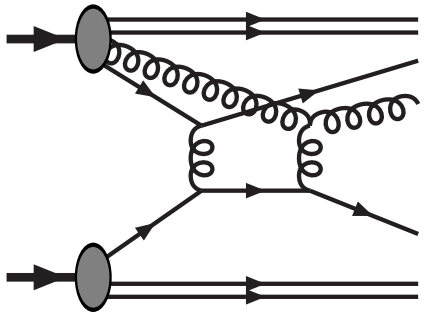
Name	position	funding	until
Johan Bijnens	professor	LU/VR	
Leif Lönnblad	professor	LU/VR	
Torbjörn Sjöstrand	professor	LU/VR	
Gösta Gustafson	prof. emeritus		
Hendrik Hoeth	postdoc	MCnet (EU)	– Sept 09
Karol Kampf	postdoc		Oct 09 –
Lisa Carloni	PhD student	Lund-HEP EST (EU)/LU	Oct 10
Richard Corke	PhD student	Lund-HEP EST (EU)/LU	Oct 10
Christoffer Flensburg	PhD student	LU	Oct 10
Ilaria Jemos	PhD student	FLAVIAnet (EU)/LU	Oct 11
Jie Lu	PhD student	Lund-HEP EST (EU)/LU	Oct 10
Stefan Prestel	PhD student	LU	Jan 13

+ MCnet short-term visitors ($\sim$ 10 man-months/year)

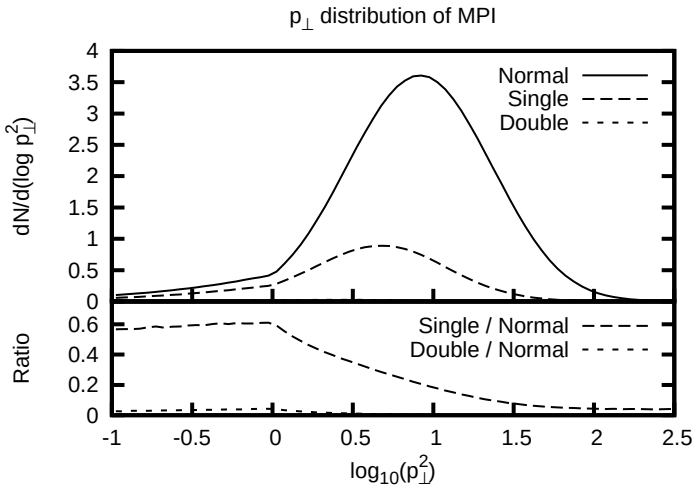
MPI and Rescattering

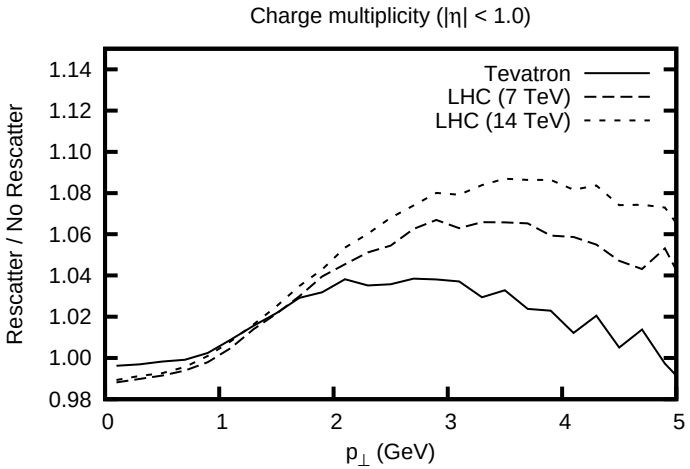
Richard Corke and Torbjörn Sjöstrand

- Already scattered partons can take part in another subsequent scattering
  - Single rescattering; one parton from the beam + one already scattered parton
  - Double rescattering; both partons are already scattered



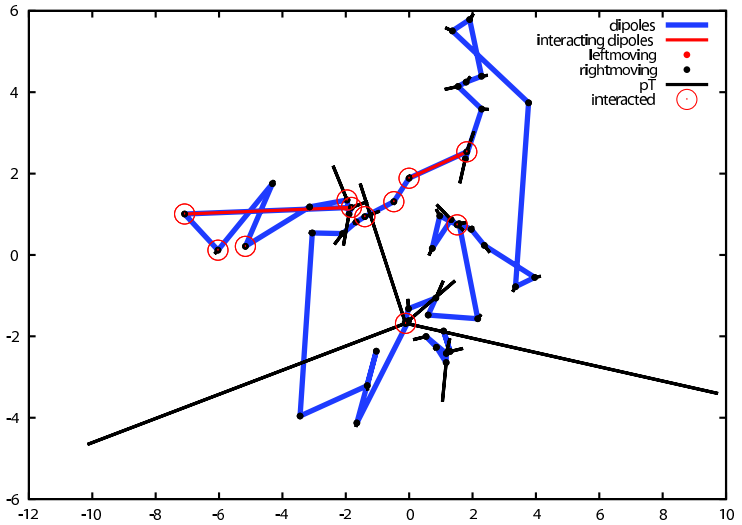
- Soft interactions, but novel effects?



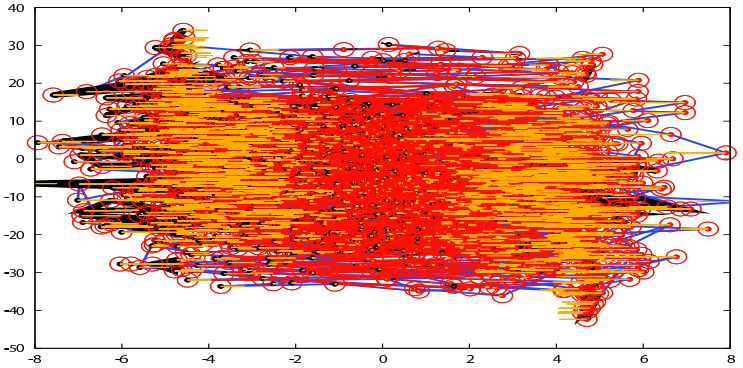


Christoffer Flensburg

- Working with Leif Lönnblad and Gösta Gustafson.
- Initial state dipoles in transverse space.
- Describes a wide range of total cross sections.
- Now working on final state generator. (Almost done!)
- Does photons, protons, heavy ions.



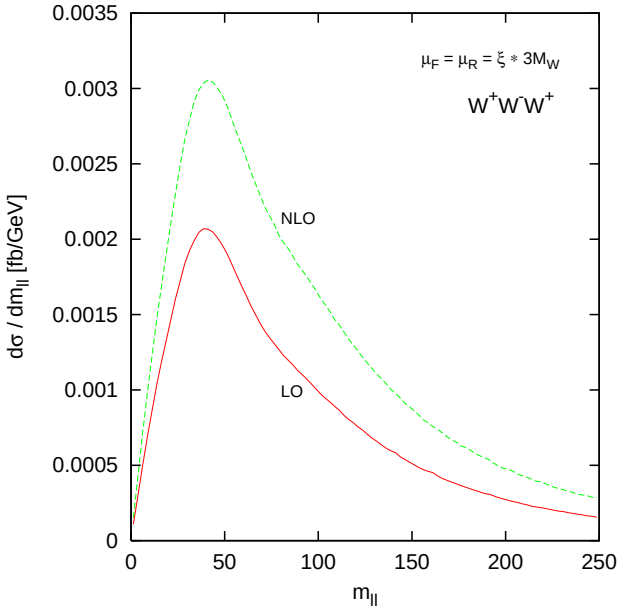
An evolved proton in transverse space.



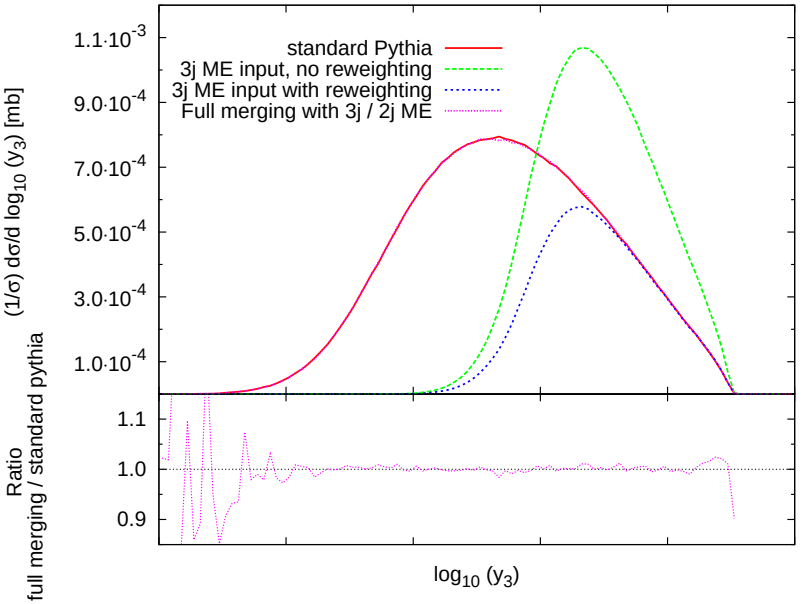
Two collided gold nuclei. The x-axis is rapidity.

Stefan Prestel

Past: NLO QCD for WWW with leptonic decays in VBFNLO



Present: CKKW-L PS-merging with LO matrix elements



Future: CKKW-L PS-merging with NLO matrix elements