Recoil problems

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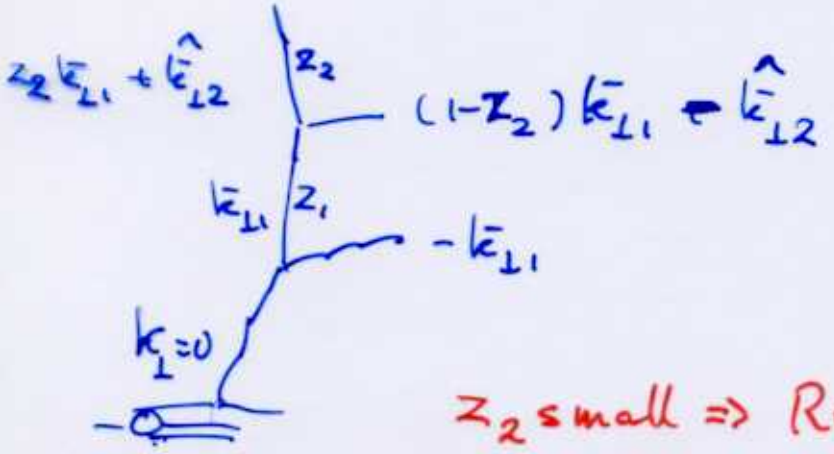
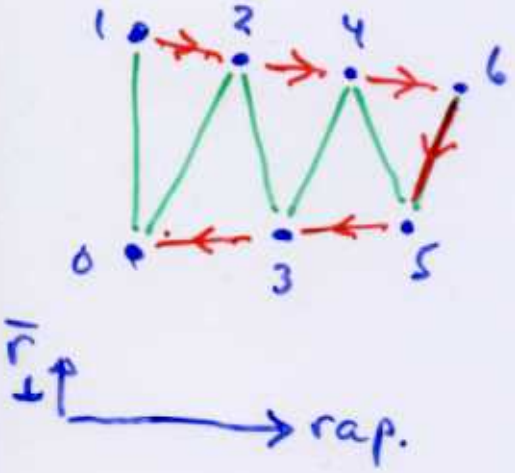
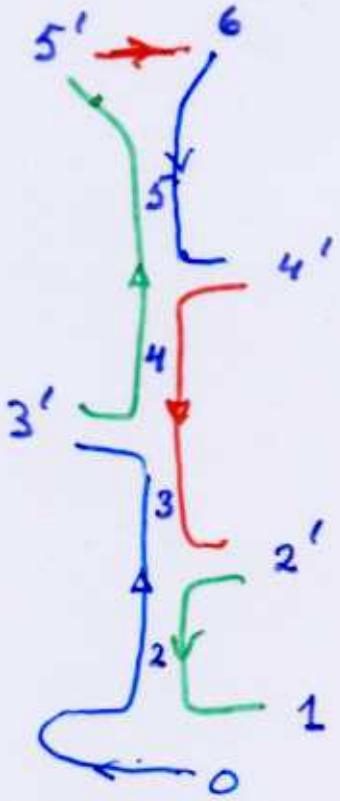
Standard DGLAP evolution



z_2 small $\Rightarrow$ Recoil absorbed by the next gluon i rapidity order.

Dipole picture





2 & 4 recoiling against each other
3 & 5 — " —

The recoils can also be kept inside a colour line.

Can this be observed experimentally?

Trigger on a high $p_\perp$ particle

Look for associated particles

Study $\frac{\text{same side}}{\text{opposite side}}$

$\frac{dn}{dp_{\perp\parallel}}\Big|_{\text{same side}} / \frac{dn}{d|p_{\perp\parallel}|}\Big|_{\text{opposite side}}$

3

Tobias Toll

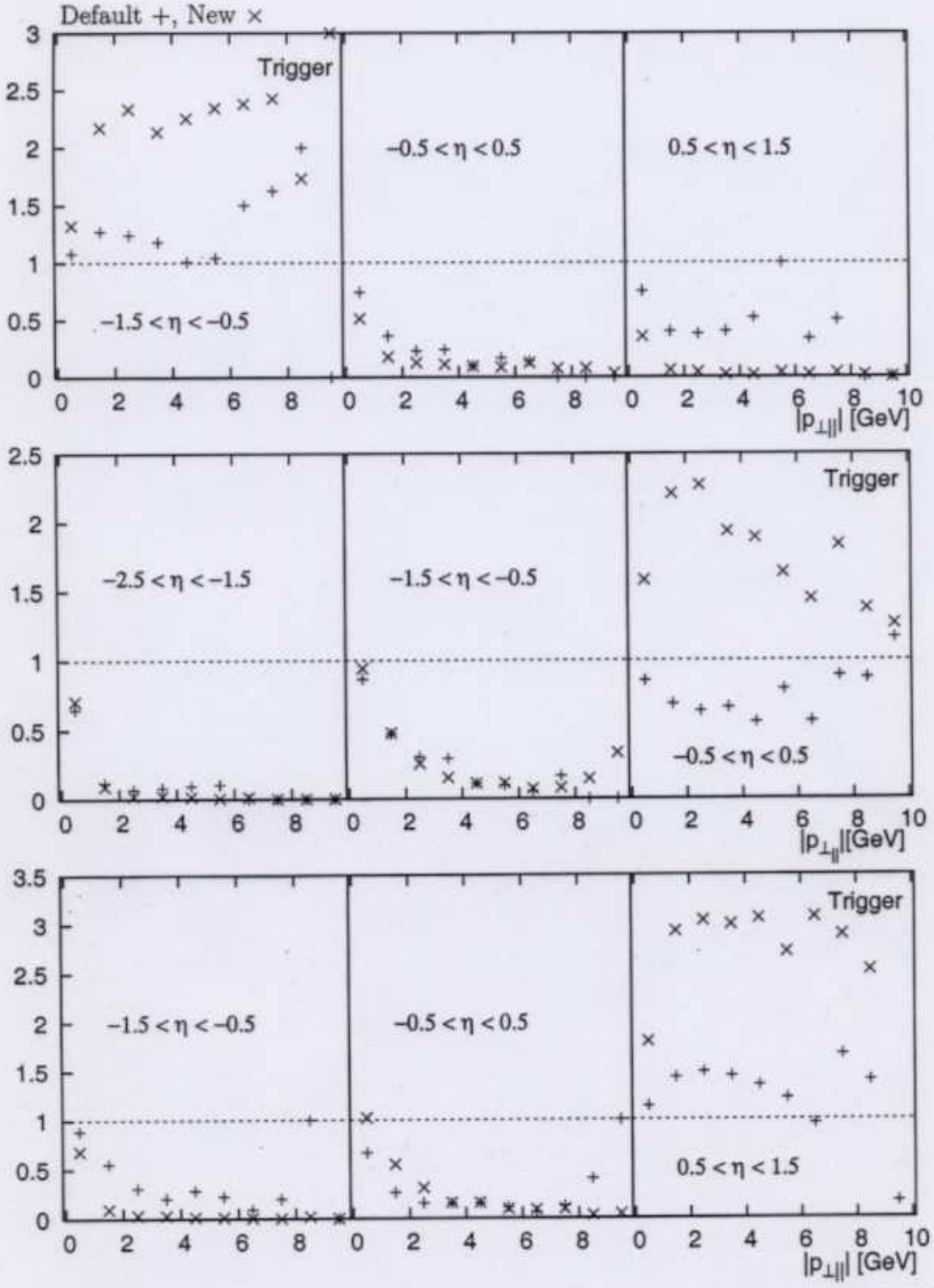


Figure 21: Comparisons between ARIADNE run on default and ARIADNE with the BGF dipoles separated. The trigger lies in the bin of the plot marked with 'Trigger' in each row and in the region where $4 < p_{\perp,trigger} < 10$. The diagrams show the $d\sigma/dpt$ component of a Hadron parallell to the trigger divided by the antiparallell cross-section.