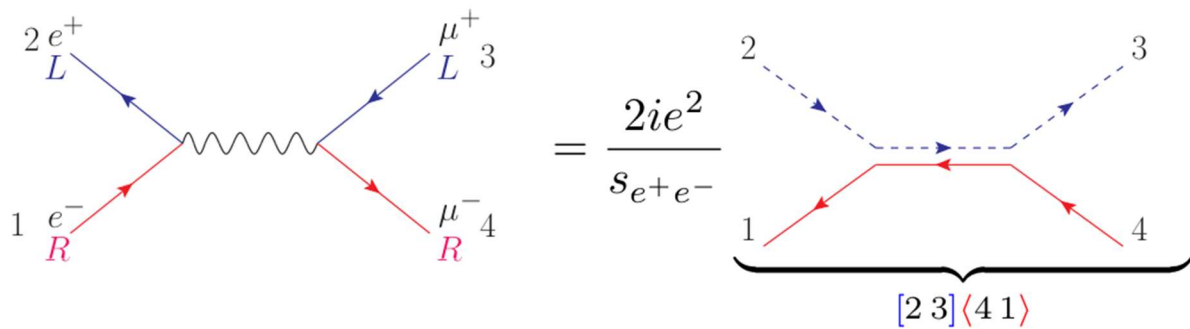


INVITATION

to the lecture of

Malin Sjö Dahl

Lund University



$$\begin{array}{c}
 2 e^+ \\
 L \\
 \swarrow \\
 \text{---} \text{---} \text{---} \\
 \searrow \\
 1 e^- \\
 R
 \end{array}
 \begin{array}{c}
 \swarrow \\
 \mu^+ \\
 L \\
 3 \\
 \searrow \\
 \mu^- \\
 R \\
 4
 \end{array}
 = \frac{2ie^2}{s_{e^+e^-}}
 \begin{array}{c}
 2 \\
 \text{---} \text{---} \text{---} \\
 \searrow \\
 1 \\
 \text{---} \text{---} \text{---} \\
 \swarrow \\
 4 \\
 \searrow \\
 3
 \end{array}
 \underbrace{\hspace{10em}}_{[2\ 3]\langle 4\ 1\rangle}$$

Remodeling Feynman diagrams with chirality flow

Since some 70 years, the standard method for calculating probabilities of particle scattering in collider experiments is to use Feynman diagrams which associate factors with interaction vertices and propagators. In this talk I will explore how standard Feynman rules can be significantly simplified by breaking up the Lorentz structure of spin and momentum into smaller objects, the left and right spinors. By adapting the method of color flow from the strong force, I show how amplitudes corresponding to Feynman diagrams can be written down in a transparent and intuitive manner.

time: Monday, 22nd April 2024 03:15 - 04:45 p.m.

place: HS 05.01, Universitätsplatz 5, EG, 8010 Graz

meet the speaker: 22nd April 2024 02:45 - 03:15 p.m.

1. OG, Universitätsplatz 5, 8010 Graz, Room 0005 - 01 - 0122 library of Experimental Physics

Host: Prof. Reinhard Alkofer