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## Color/ Kinematics Duality in $AdS_4$

*Wednesday 16 December 2020 16:00 (30 minutes)*

In flat space, the color/kinematics duality states that perturbative Yang-Mills amplitudes can be written in such a way that kinematic numerators obey the same Jacobi relations as their color factors. This property leads to the BCJ relations between Yang-Mills amplitudes and underlies the double copy to gravitational amplitudes. In this talk, I will explore how this extends to  $AdS_4$ , where a generalised gauge symmetry can be used to enforce the Jacobi relations away from the flat space limit; this lets us derive deformed BCJ relations. I will also review the spinor helicity in a curved background, leading to compact new expressions for 4pt Yang-Mills amplitudes in  $AdS_4$ .

### Would you be interested in receiving feedback on your talk?

Yes

### Will you be pre-recording your talk?

No

### Length of talk

15-25 minutes

### Are you happy for your talk to be recorded?

Yes

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**Session Classification:** Parallel Stream 3