



Contribution ID: 182

Type: **Talk**

## One-loop amplitudes in the worldline formalism.

*Thursday, 7 October 2021 17:10 (25 minutes)*

The worldline formalism provides an alternative to Feynman diagrams that allows one to derive integral representations for effective actions and amplitudes in field theory that to some extent share the superior organization of string amplitudes. After a general discussion of the advantages of the formalism with respect to gauge invariance and its ability to combine contributions from topologically different Feynman diagrams, I will present a number of examples focusing on  $N$ -point functions in scalar field theories and quantum electrodynamics.

### Is this abstract from experiment?

No

### Name of experiment and experimental site

N/A

### Is the speaker for that presentation defined?

Yes

### Details

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### Internet talk

No

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**Session Classification:** Interdisciplinary session