

Asymptotic Safety meets Particle Physics

Report of Contributions

Contribution ID: 1

Type: **not specified**

Towards an UV Complete MSSM

Tuesday 18 December 2018 10:30 (45 minutes)

Primary author: Mr MOCH, Kevin (TU Dortmund)

Presenter: Mr MOCH, Kevin (TU Dortmund)

Session Classification: Session 1

Contribution ID: 2

Type: **not specified**

Welcome

Tuesday 18 December 2018 09:30 (1 hour)

Primary authors: Prof. LITIM, Daniel (University of Sussex); Prof. HILLER, Gudrun (Technische Universitaet Dortmund (DE))

Presenters: Prof. LITIM, Daniel (University of Sussex); Prof. HILLER, Gudrun (Technische Universitaet Dortmund (DE))

Session Classification: Session 1

Contribution ID: 3

Type: **not specified**

Susy fixed points and the a theorem

Tuesday 18 December 2018 11:45 (45 minutes)

Primary author: Dr BOND, Andy (University of Sussex)

Presenter: Dr BOND, Andy (University of Sussex)

Session Classification: Session 1

Contribution ID: 4

Type: **not specified**

Fixed points of 4d gauge-Yukawa models

Tuesday 18 December 2018 14:00 (45 minutes)

Primary author: Mr STEUDTNER, Tom (University of Sussex)

Presenter: Mr STEUDTNER, Tom (University of Sussex)

Session Classification: Session 2

Contribution ID: 5

Type: **not specified**

Conformal windows of gauge-matter theories

Tuesday 18 December 2018 14:45 (45 minutes)

Primary author: Mr MEDINA VAZQUEZ, Gustavo (University of Sussex)

Presenter: Mr MEDINA VAZQUEZ, Gustavo (University of Sussex)

Session Classification: Session 2

Contribution ID: 6

Type: **not specified**

SU(2) x U(1) with flavor

Tuesday 18 December 2018 16:00 (45 minutes)

Primary author: Ms HORMIGOS FELIU, Clara (TU Dortmund)

Presenter: Ms HORMIGOS FELIU, Clara (TU Dortmund)

Session Classification: Session 3

Contribution ID: 7

Type: **not specified**

UV properties of SU(3)_H

Tuesday 18 December 2018 16:45 (30 minutes)

Primary author: Mr GOLZ, Marcel

Presenter: Mr GOLZ, Marcel

Session Classification: Session 3

Contribution ID: 8

Type: **not specified**

SM x U(1)Flavor

Tuesday 18 December 2018 17:15 (30 minutes)

Primary author: Mr BAUSE, Rigo

Presenter: Mr BAUSE, Rigo

Session Classification: Session 3

Contribution ID: 9

Type: **not specified**

Asymptotically safe quantum gravity

Wednesday 19 December 2018 10:00 (1 hour)

Primary author: Dr FALLS, Kevin

Presenter: Dr FALLS, Kevin

Session Classification: Session 4

Contribution ID: **10**

Type: **not specified**

Quantum gravity beyond Ricci tensors

Wednesday 19 December 2018 11:00 (45 minutes)

Primary author: Mr KLUTH, Yannick (University of Sussex)

Presenter: Mr KLUTH, Yannick (University of Sussex)

Session Classification: Session 4

Contribution ID: 11

Type: **not specified**

Collider signatures of asymptotically safe low-scale quantum gravity

Wednesday 19 December 2018 11:45 (45 minutes)

Primary author: Mrs ZENGLEIN, Magdalena

Presenter: Mrs ZENGLEIN, Magdalena

Session Classification: Session 4

Contribution ID: 12

Type: **not specified**

2HDM, SU(3)C x SU(3)Dark

Wednesday 19 December 2018 14:00 (45 minutes)

Primary author: Mr SCHUH, Peter (TU Dortmund)

Presenter: Mr SCHUH, Peter (TU Dortmund)

Session Classification: Session 5

Contribution ID: 13

Type: **not specified**

Asymptotic safety with fermions

Wednesday 19 December 2018 14:45 (45 minutes)

Primary author: Mr CRESSWELL-HOGG, Charlie (U Sussex)

Presenter: Mr CRESSWELL-HOGG, Charlie (U Sussex)

Session Classification: Session 5

Contribution ID: 14

Type: **not specified**

Staying safe with gauge-Yukawa theories

Wednesday 19 December 2018 16:00 (1 hour)

In this talk I will give a straightforward overview of the fixed point structure of weakly coupled gauge-Yukawa theories, with a particular focus on ultraviolet fixed points, which allow theories to remain predictive to arbitrarily high energies. I will describe the general structures involved and how they constrain the possibilities of what may occur, as well as providing specific models where we can see a variety of fixed points occurring in practice in several settings.

Primary author: Dr BOND, Andy (University of Sussex)

Presenter: Dr BOND, Andy (University of Sussex)

Session Classification: Session 6