



# Extended Scalar Sectors From All Angles

## Monday 21 October 2024

### Contributed Talks - 503/1-001 - Council Chamber (11:15 - 12:35)

-Conveners: Marcin Badziak

| time  | [id] title   | presenter             |
|-------|--|-----------------------|
| 11:15 | [33] Higgs Sector in B-L Supersymmetric Standard Model           | Prof. KHALIL, Shaaban |
| 11:35 | [52] Electroweak hierarchy from conformal and custodial symmetry | TRAUTNER, Andreas     |
| 11:55 | [15] Scalar sector of CP4 3HDM                                   | LIU, Bei              |

### Contributed Talks - 503/1-001 - Council Chamber (14:30 - 16:10)

-Conveners: Andreas Trautner

| time  | [id] title  | presenter                 |
|-------|---|---------------------------|
| 14:30 | [77] Complex $S_3$ Symmetric 3HDM   | REBELO, Margarida Nesbitt |
| 14:50 | [17] Reconstructing the general 2HDM charged Higgs boson at the LHC                       | KRAB, Mohamed             |
| 15:10 | [29] Unlocking the 2HDM Phase Space: Recent Experimental Insights and Discovery Potential | JAFFEL, Khawla            |
| 15:30 | [87] Low mass resonance search in $b\bar{b}$ final state at the LHC                       | ADHIKARY, Amit            |
| 15:50 | [78] Associate production of light scalars at the LHC                                     | DESAI, Aman               |

### Contributed Talks - 503/1-001 - Council Chamber (16:40 - 17:40)

-Conveners: Martin Gabelmann

| time  | [id] title   | presenter                       |
|-------|--|---------------------------------|
| 16:40 | [20] Explaining the 152 GeV di-photon excesses at the LHC via associated production                | COLORETTI, Guglielmo            |
| 17:00 | [34] Exotic Higgs decay $h \rightarrow Z a$ in the final state of two muons and two $\tau$ leptons | Dr SANDÁ SEOANE, Rosa María     |
| 17:20 | [48] Potential enhancements in triple Higgs production in proton proton colliders                  | TETLALMATZI-XOLOCOTZI, Gilberto |

# Tuesday 22 October 2024

## Contributed Talks - 503/1-001 - Council Chamber (14:00 - 15:40)

-Conveners: Venus Keus

| time  | [id] title  | presenter  |
|-------|---|--|
| 14:00 | [51] Spontaneous CPV from several angles  | JOAQUIM, Filipe Rafael<br>BRITO CÂMARA, Henrique |
| 14:20 | [27] CP-violation in 2HDM facing future EDM and Collider Tests                                | Dr MAO, Ying-nan                                 |
| 14:40 | [81] Natural Alignment and CP Violation Beyond the Standard Model                             | PILAFTSIS, Apostolos                             |
| 15:00 | [44] New scalars as Dark Matter induced by Baryogenesis                                       | ESCUDERO ABENZA, Miguel                          |
| 15:20 | [22] A viable model with extended scalar sector for neutrino, dark matter and EW baryogenesis | Prof. KANEMURA, Shinya                           |

## Contributed Talks - 503/1-001 - Council Chamber (16:10 - 17:50)

-Conveners: Andreas Papaefstathiou

| time  | [id] title   | presenter             |
|-------|--|-----------------------|
| 16:10 | [9] Charge-breaking opportunities for the early Universe                     | Prof. IVANOV, Igor    |
| 16:30 | [13] Electroweak Baryogenesis via Domain Walls in the N2HDM                  | SASSI, Mohamed Younes |
| 16:50 | [3] Multi-Higgs production and the Electroweak Phase Transition through TRSM | KARKOUT, Osama        |
| 17:10 | [31] Conformal Majoron-like models with supercooled phase transitions        | MORAIS, António       |
| 17:30 | [54] Accidental Suppression of Wilson Coefficients in Higgs Coupling         | LIU, Zhen             |

# Wednesday 23 October 2024

## Contributed Talks - 503/1-001 - Council Chamber (17:30 - 18:30)

-Conveners: Ian Lewis

| time  | [id] title  | presenter            |
|-------|---|----------------------|
| 17:30 | [18] Pair production of Higgs Bosons at NLO   | SPIRA, Michael       |
| 17:50 | [14] Double Higgs Boson Production in Association of Jets in the Triplet Higgs Model at the LHC | FIGY, Terrance       |
| 18:10 | [4] Interference effects in resonant di-Higgs production at the LHC                             | WINTERBOTTOM, Daniel |

# Thursday 24 October 2024

## **Contributed Talks - 503/1-001 - Council Chamber (11:45 - 12:30)**

| time  | [id] title   | presenter                   |
|-------|--|-----------------------------|
| 11:45 | [8] Looking for a SFOEWPT in the RxSM at the HL-LHC and LISA   | VERDURAS SCHAEIDT, Alain    |
| 12:05 | [19] Impact of Loop Corrections to the Trilinear Higgs Couplings and Interference Effects on Experimental Limits | RADCHENKO SERDULA, Kateryna |

## **Contributed Talks - 503/1-001 - Council Chamber (14:45 - 16:00)**

| time  | [id] title  | presenter             |
|-------|---|-----------------------|
| 14:45 | [39] Impact of interference effects on Higgs searches in the di-top final state at the LHC    | KUMAR, Romal          |
| 15:05 | [53] On the robustness of the indirect determination of the width of the detected Higgs boson | STYLIANOU, Panagiotis |
| 15:25 | [40] Sensitivity of 2HDMa searches to Inert Doublet Model                                     | Dr LAHIRI, Jayita     |

# Friday 25 October 2024

## Contributed Talks - 503/1-001 - Council Chamber (11:45 - 12:30)

| time  | [id] title   | presenter                  |
|-------|--|----------------------------|
| 11:45 | [21] Dissecting multi-Higgs production in new physics models                               | Dr PAPAEFSTATHIOU, Andreas |
| 12:05 | [38] Decoding the Georgi-Machacek Scenario: Insights from the LHC and Future Possibilities | Ms GHOSH, Rituparna        |

## Contributed Talks - 503/1-001 - Council Chamber (14:00 - 15:00)

-Conveners: António Morais

| time  | [id] title  | presenter              |
|-------|---|------------------------|
| 14:00 | [79] Searching for light new scalars with atomic and nuclear clocks     | KIRK, Fiona            |
| 14:20 | [10] Minimal U(1) two-Higgs-doublet models for quark and lepton flavour | BRITO CÂMARA, Henrique |
| 14:40 | [83] Flavor-nondiagonal neutral Higgs Yukawa couplings revisited        | HABER, Howard          |

## Contributed Talks - 503/1-001 - Council Chamber (15:30 - 16:50)

-Conveners: Johannes Braathen

| time  | [id] title   | presenter                    |
|-------|--|------------------------------|
| 15:30 | [50] Renormalization of the general Two-Higgs-Doublet Model  | FESER, Robin                 |
| 15:50 | [43] Precise predictions for trilinear Higgs couplings and $gg \rightarrow HH$                     | GABELMANN, Martin            |
| 16:10 | [24] Two-loop form factors for Scalar Dark Matter annihilation to colored Standard Model particles | KATAPUR, Warsimakram Imamsab |