

## Session Program

Aug 16 - 27, 2021



## 49th SLAC Summer Institute (SSI 2021)

### *Lectures*

SLAC, ZOOM videoconf

# Mon, August 16

9:00 AM

## Lectures

Session | Location: SLAC, ZOOM videoconf

9:00 - 9:05 AM **Welcome**

**Speaker**  
Thomas Rizzo

9:05 - 10:00 AM **The Higgs: What We Know & What We Want to Learn**

**Speaker**  
Sally Dawson

10:00 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Standard Model Higgs Basics (I)**

**Speaker**  
Stefania Gori

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Higgs at LHC (I)**

**Speaker**  
Marumi Kado

12:35 - 12:50 PM **Q & A**

12:50 PM

# Tue, August 17

9:00 AM

## Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Standard Model Higgs Basics (II)**

**Speaker**

Stefania Gori

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Higgs at LHC (II)**

**Speaker**

Marumi Kado

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **BSM Higgs (I)**

**Speaker**

Nausheen Shah

12:35 - 12:50 PM **Q & A**

12:50 PM

# Wed, August 18

9:00 AM

## Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Precision Calculations of Higgs Boson Production at Colliders**

**Speaker**

Bernhard Mistlberger

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Higgs at LHC (III)**

**Speaker**

Marumi Kado

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **BSM Higgs (II)**

**Speaker**

Prof. Nausheen Shah

12:35 - 12:50 PM **Q & A**

12:55 PM

# Thu, August 19

9:00 AM

## Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Precision Calculations of Higgs Partial Widths and Decays**

**Speaker**

Ayres Freitas

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Higgs Boson Self-Interactions**

**Speaker**

Caterina Vernieri

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Higgs as a Portal to BSM (I)**

**Speaker**

Jessie Shelton

12:35 - 12:50 PM **Q & A**

12:50 PM

# Fri, August 20

9:00 AM

## Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Naturalness: Why is the Higgs Light ?**

**Speaker**

Nathaniel Craig

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Beyond the Standard Model Higgs Searches**

**Speaker**

Jan Steggemann

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Higgs as a Portal to BSM (II)**

**Speaker**

Jessie Shelton

12:35 - 12:50 PM **Q & A**

12:50 PM

# Mon, August 23

9:00 AM

## Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **A history of the Higgs Mechanism**

**Speaker**  
Chris Quigg

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Extending Higgs Measurement Capabilities (I)**

**Speaker**  
Maria Cepeda

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Role of the Higgs Sector in the Generation & Flavor Problem (I)**

**Speaker**  
Wolfgang Altmannshofer

12:35 - 12:50 PM **Q & A**

12:50 PM

## Tue, August 24

9:00 AM

### Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Higgs EFT (I)**

**Speaker**

Veronica Sanz

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Extending Higgs Measurement Capabilities (II)**

**Speaker**

Maria Cepeda

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Role of the Higgs Sector in the Generation & Flavor Problem (II)**

**Speaker**

Wolfgang Altmannshofer

12:35 - 12:50 PM **Q & A**

12:50 PM

## Wed, August 25

9:00 AM

### Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Higgs EFT (II)**

**Speaker**

Veronica Sanz

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Higgs at Future e+e- Colliders**

**Speaker**

Patrizia Azzi

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Higgs & Flavor - Experiment**

**Speaker**

Phillip Urquijo

12:35 - 12:50 PM **Q & A**

12:50 PM

# Thu, August 26

9:00 AM

## Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **Higgs & Baryogenesis**

**Speaker**

Patrick Meade

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Higgs at Future Hadron Colliders**

**Speaker**

Michele Selvaggi

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **Higgs & Gravity Connection ?**

**Speaker**

Mikhail Shaposhnikov

12:35 - 12:50 PM **Q & A**

1:00 PM

## Fri, August 27

9:00 AM

### Lectures

**Session** | **Location:** SLAC, ZOOM videoconf

9:00 - 9:55 AM **The Higgs Boson & Cosmology**

**Speaker**

Mikhail Shaposhnikov

9:55 - 10:10 AM **Q & A**

10:10 - 10:20 AM **Break**

10:20 - 11:15 AM **Higgs at Future Colliders: What Do We Learn ?**

**Speaker**

Michael Peskin

11:15 - 11:30 AM **Q & A**

11:30 - 11:40 AM **Break**

11:40 AM - 12:35 PM **The View Ahead**

**Speaker**

Howard Haber

12:35 - 12:50 PM **Q & A**

12:50 - 12:55 PM **Adjourn**

1:00 PM