



SPeCial4Young

# SYSU-PKU Collider physics forum For Young scientists



## 中山-北大联合高能物理青年论坛第十七期

自希格斯玻色子发现后，标准模型预言的粒子都已被找到。然而近些年来，在实验中发现越来越多与标准模型不符合的迹象，例如中微子质量、轻子味道普适性破坏以及CDF实验测量W玻色子质量反常等问题。这些“乌云”催促我们去寻找标准模型之外的新物理。高能物理界提出了各种不同的未来实验项目，例如基于LHC对撞机的升级计划（HL-LHC、HE-LHC）、未来环形对撞机（FCC、SPPC）、国际直线对撞机（ILC）、紧凑型直线对撞机（CLIC）、环形正负电子对撞机（CEPC）、缪子对撞机（MuC）、电子-缪子乃至电子-中微子对撞机等。

本论坛目的在于为高能物理工作者提供平台交流其在高能物理前沿的进展与经验，包括但不限于对撞机技术、软件模拟、物理分析等，同时也为高年级本科生及研究生提供接触高能物理前沿的机会。

### 报告题目: Di-Higgs searches in the bbbb final state with the ATLAS experiment

**摘要:** Higgs pair production is a key process to measure the Higgs self-coupling and a sensitive probe of both the Standard Model and new physics. In this talk, I will focus on the 4b final state where both Higgs bosons decay to b-quarks, and discuss the latest di-Higgs search results using the Run 2 data in the ATLAS experiment. A few highlights

for Run 3 will also be shown.

**报告人简介:** 石辽珊, completed her PhD at Sun Yat-Sen University in 2019, she is now a postdoctoral research fellow in University College London. She works on Higgs and di-Higgs searches in the ATLAS experiment, with a special focus on b-jet final state. Currently she also serves as the Event Display Coordinator and the Online Event Display Coordinator in the ATLAS experiment.

**时间:** 9月21日 周三 19:00 ---19:30, 线上

**会议ID:** 487 887 1035 (Zoom) Passcode: 527772

Indico: <https://indico.ihep.ac.cn/event/17484/>



Meeting link: <https://cern.zoom.us/j/4878871035?pwd=SjJuekR3cnBueUx3Y1pvUzl6QkZNUt09>

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