



# Vector Boson Fusion IOP/IPPP Meeting

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5<sup>th</sup> June 2014

# Welcome!

- Welcome to Warwick
- Many thanks to IOP and IPPP (Frank Krauss) for support and co-organisation
- This meeting follows one three years ago, organised by us together with Chris Hays:
  - <http://www.physics.ox.ac.uk/iopfeb11/index.asp>
- Much has changed since then!
  - VBF observation in Higgs production
  - VBF observation of Z production
- Timely for theorists and experimentalists to discuss the next steps

# Purpose

- Much has changed since three years ago
  - VBF observation in Higgs production
  - VBF observation of Z production
- Timely for theorists and experimentalists to discuss the next steps
  - Theory
  - Experiment
  - What can VBF tell us about the nature of the New Boson?

# Agenda

## **Welcome - S0.08 Social Sciences (11:25-11:30)**

- Presenters: FARRINGTON, Sinead

## **Theory overview - S0.08 Social Sciences (11:30-12:00)**

- Presenters: ENGLERT, Christoph

## **Evidence for VBF in Higgs production at the LHC - S0.08 Social Sciences (12:00-12:25)**

- Presenters: JANUS, Michel

## **Evidence for VBF in W/Z production at the LHC - S0.08 Social Sciences (12:25-12:45)**

- Presenters: HENDERSON, James

## **Evidence for VBF in Z Production at the LHC - S0.08 Social Sciences (12:45-13:05)**

- Presenters: GUTSCHOW, Christian

## **QCD calculations - S0.08 Social Sciences (14:00-14:30)**

- Presenters: GLOVER, Nigel

## **Higher orders for Higgs bosons in Sherpa - S0.08 Social Sciences (14:30-15:00)**

- Presenters: KRAUSS, Frank Martin

## **Effective Field Theory and aMC@NLO - S0.08 Social Sciences (15:00-15:30)**

- Presenters: MAWATARI, Kentarou

## **Testing CP invariance in vector boson fusion using optimal observables - S0.08 Social Sciences (16:00-16:30)**

- Presenters: SCHUMACHER, Markus

## **Outlook/discussion - S0.08 Social Sciences (16:30-17:30)**

- Presenters: ALL

# Discussion

- Crowdsourcing!
  - Identify the key issues you think about during the day, and which are still open issues after the talks
  - Mail them to me during the day
  - Discussion at the end of the day will focus on these

# Logistics

- Coffee, lunch, tea all in this room
- Dinner at 6.30 in Radcliffe conference centre
- Accommodation
  - Best Western Falstaff in Leamington Spa

# Discussion Items

- Central Jet Veto
- Nigel's wishlist (remove PS from the picture?)
- Can experimental measurements be done in more theory independent way
- More important to get multiplicities right than extra loop contributions - why is that
- Incorporation of theory uncertainties in timely way