**Background, past activities** 

• From Nottingham, UK



- From Nottingham, UK
- Integrated Masters at Durham University

   thesis calculating NLO Z → bb decays in

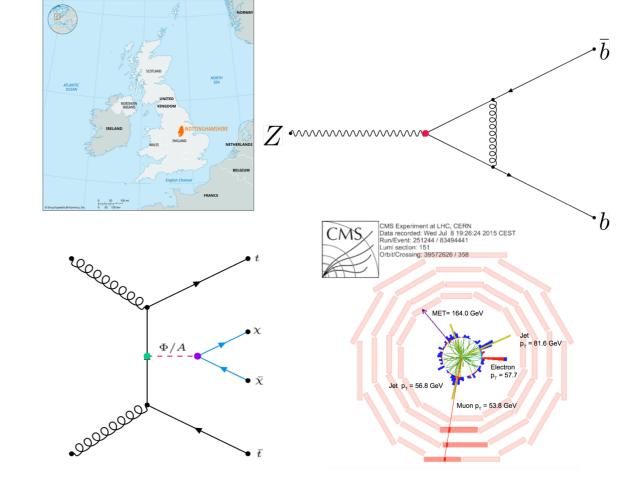
   SMEFT



- From Nottingham, UK
- Integrated Masters at Durham University

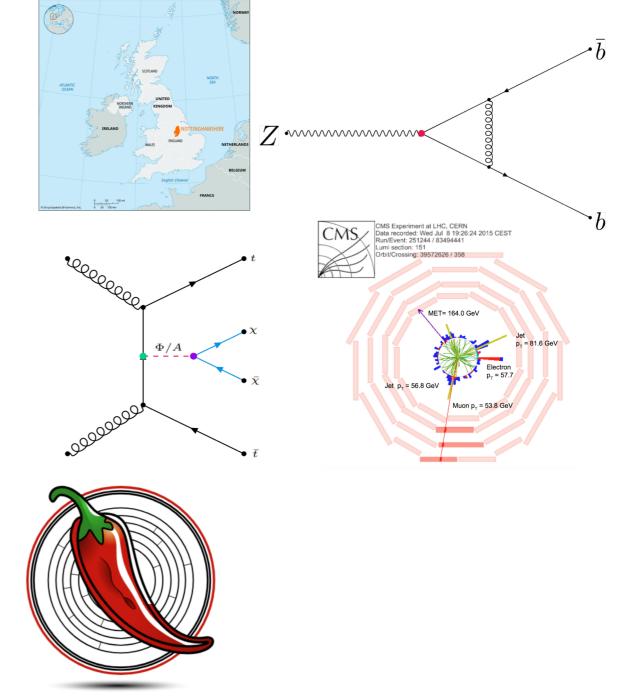
   thesis calculating NLO Z → bb decays in

   SMEFT
- PhD in CMS group at DESY searching for Dark Matter produced in association with top quarks



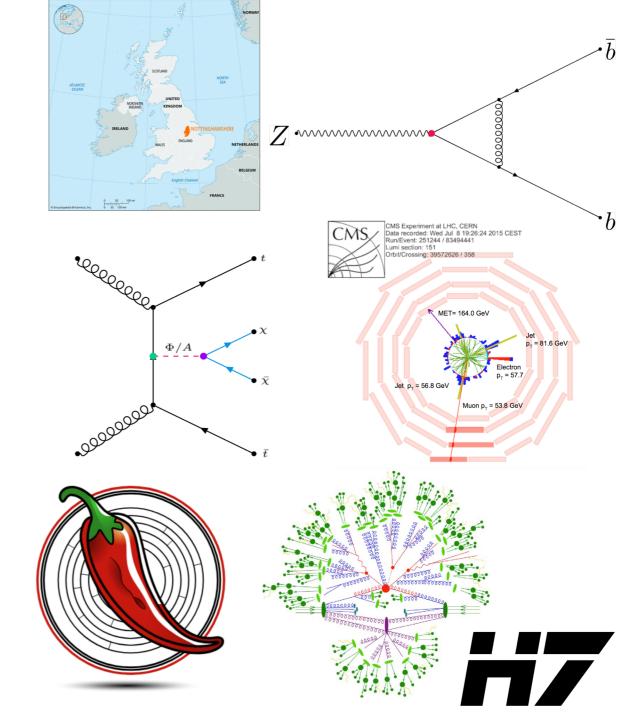
- From Nottingham, UK
- Integrated Masters at Durham University

   thesis calculating NLO Z → bb decays in
   SMEFT
- PhD in CMS group at DESY searching for Dark Matter produced in association with top quarks
- Developed new code framework to analyse CMS NanoAOD format –
   "Pepper", now used by ~ 15 analyses



- From Nottingham, UK
- Integrated Masters at Durham University

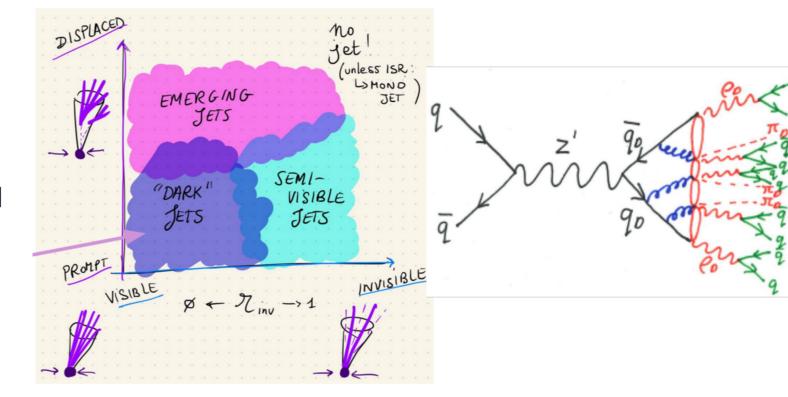
   thesis calculating NLO Z → bb decays in
   SMEFT
- PhD in CMS group at DESY searching for Dark Matter produced in association with top quarks
- Developed new code framework to analyse CMS NanoAOD format –
   "Pepper", now used by ~ 15 analyses
- Also worked on maintaining Herwig Monte Carlo event generator in CMS



# **My Current Work**

**Activities and challenges** 

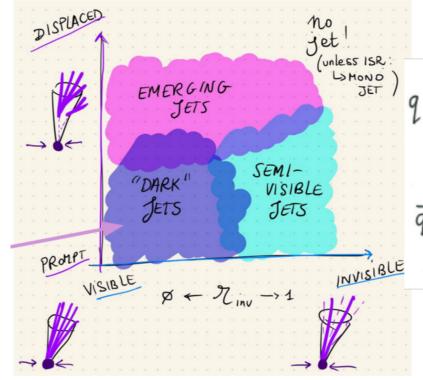
- Now searching for dark showers – more complex DM models with strong force in dark sector
  - Currently implementing these in Herwig
  - Planning a CMS search for these

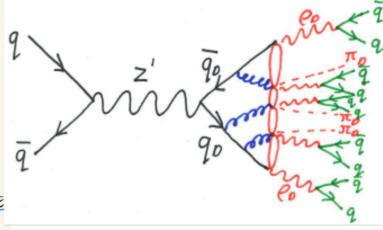


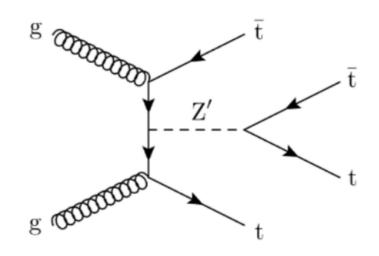
# **My Current Work**

**Activities and challenges** 

- Now searching for dark showers – more complex DM models with strong force in dark sector
  - Currently implementing these in Herwig
  - Planning a CMS search for these
- Helping with ttZ' (Z' → tt̄) search



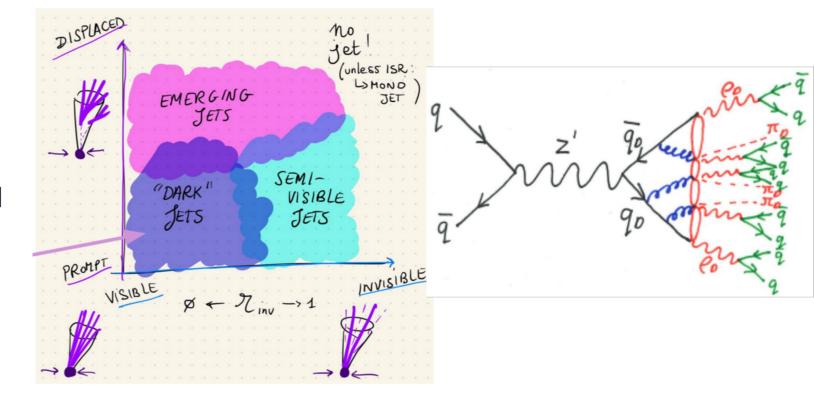


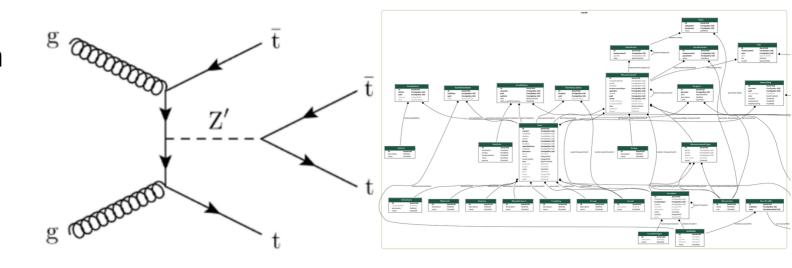


# **My Current Work**

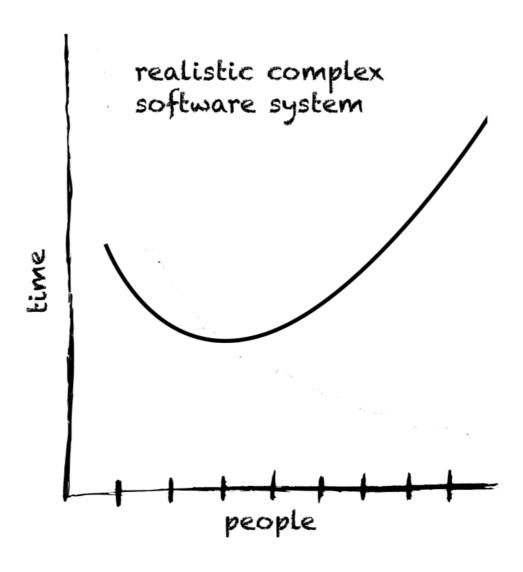
**Activities and challenges** 

- Now searching for dark showers – more complex DM models with strong force in dark sector
  - Currently implementing these in Herwig
  - Planning a CMS search for these
- Helping with ttZ' (Z' → tt) search
- Starting to work on CMS tracker upgrade – currently working on database for components and measurements





# **My Favourite Plot**



#### Source:

