



# Introduction to MCnet and MCnetITN3

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# MCnet

- A network of physicists dedicated to developing Monte Carlo event generators, and related tools, for the LHC and other particle physics experiments
- Formed in 2006
- Funded by the EU since 2007
- Includes authors of:
  - Herwig, Pythia, Sherpa, Madgraph
  - Vincia, Ariadne, DIPSY, HEJ
  - CONTUR, Rivet, Professor, hepforge, ...



# MCnetITN3

- An EU Horizon 2020 funded Innovative Training Network
- April 2017 – March 2021
- ~ 4M Euros
  - 11 PhD studentships
  - 144 student-months short-term studentships
    - ~40 studentships



# MCnetITN3

- **Funded for four years**
  - April 1<sup>st</sup> 2017 – March 31<sup>st</sup> 2021
- **540 student months**
  - 11 x 36-month PhDs (vs 6PhDs + 8RAs)
  - 144 short-term student-months (vs 142)
- **€972,000 research, training & networking**
  - 4 schools (+ 2 overseas)
  - 8 meetings
  - 4 training events
  - Training + travel + visitors + secondments



# MCnetITN3

- **Beneficiaries:**
  - Manchester, Durham, Glasgow, UCL
  - Göttingen, Karlsruhe, Louvain, Lund
- **Academic Partners:**
  - CERN, Heidelberg, Monash, SLAC  
+ Fermilab
- **Non-Academic Partners:**
  - blue yonder, d-fine, IBA, B12



# MCnetITN3

- **Projects:**
  - Herwig
  - Pythia
  - Sherpa
  - Madgraph
  - Plugin
    - Ariadne/DIPSY & HEJ
  - CEDAR
    - Rivet, Professor, hepforge, HEPDATA, CONTUR
    - LHAPDF, HepMC



# MCnetITN3

- Schools:
  - 2017 Lund, July 3<sup>rd</sup> – 7<sup>th</sup>
  - 2018 Prato, Tuscany (Monash), July 23<sup>rd</sup> – 27<sup>th</sup>
  - 2019 UCLondon
  - 2020 Karlsruhe
  - + 2 outside Europe (USA + Far East?)
  - + Scientific Computing School

# Monte Carlo

## training studentships



**3-6 month** fully funded studentships for current PhD students at one of the MCnet nodes. An excellent opportunity to really understand and improve the Monte Carlos you use!

**Application rounds every 3 months.**

## MCnet projects

Pythia+Vincia

Herwig

Sherpa

MadGraph

“Plugin” – Ariadne+HEJ  
CEDAR – Rivet+Professor  
+Contur+hepforge+...



funded by:



for details go to:  
[www.montecarlonet.org](http://www.montecarlonet.org)