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\textsuperscript{st} 2017 – March 31\textsuperscript{st} 2021
- 540 student months
  - 11 x 36-month PhDs (vs 6 PhDs + 8 RAs)
  - 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
• **Schools:**
  – 2017 Lund, July 3\(^{rd}\) – 7\(^{th}\)
  – 2018 Prato, Tuscany (Monash), July 23\(^{rd}\) – 27\(^{th}\)
  – 2019 UCLondon
  – 2020 Karlsruhe
  + 2 outside Europe (USA + Far East?)
  + Scientific Computing School
Monte Carlo training scholarships

MCnet projects
- Pythia+Vincia
- Herwig
- Sherpa
- MadGraph
- “Plugin” – Ariadne+HEJ
- CEDAR – Rivet+Professor
- +Contur+hepforge+...

3-6 month fully funded scholarships 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.

for details go to: www.montecarlonet.org