

Distributed Analysis Scheme for High Energy Physics



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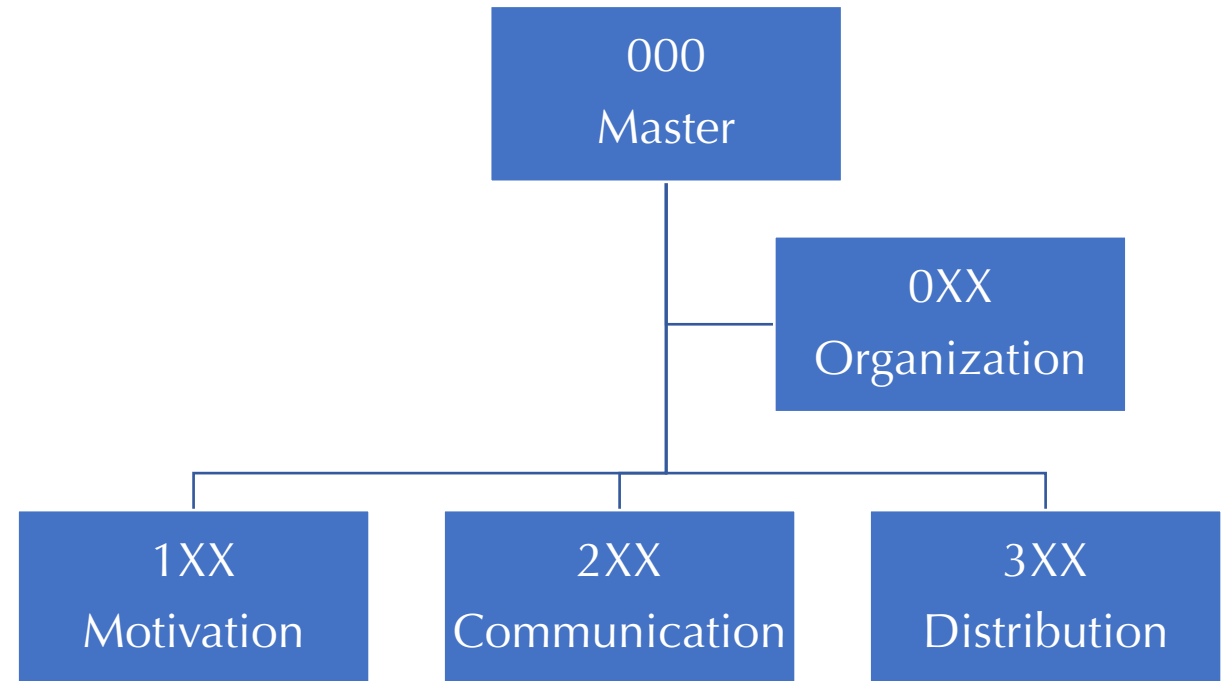
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What is DAS-HEP ?

- Distributed Analysis Scheme for High Energy Physics
- First idea formulated in 2016 [1]
- A series of courses to transform a new student to a productive and collaborative researcher

Course Overall Structure

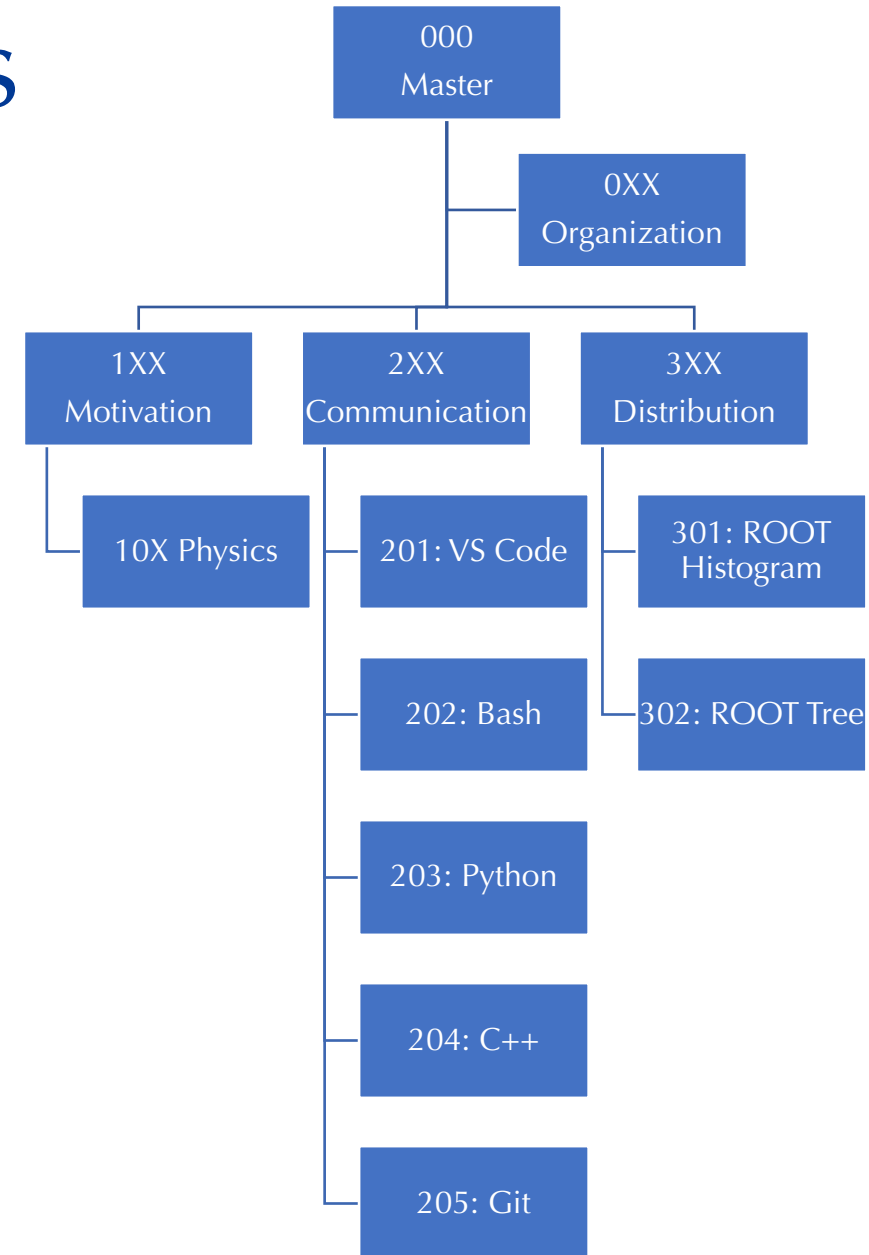


[1] <https://indico.ihep.ac.cn/event/6253/session/7/contribution/30/material/slides/0.pdf>

An example future courses

- 000 : Introduction to DAS-HEP
- 101 : What is our world made of ?
- 102 : What is accelerator ?
- 103 : What is detector ?
- ...
- 201: Visual Studio Code
- 202: Bash Shell
- 203: Python
- 204: C++
- 205: Git
- ...
- 301: ROOT Histogram
- 302: ROOT Tree
- ...

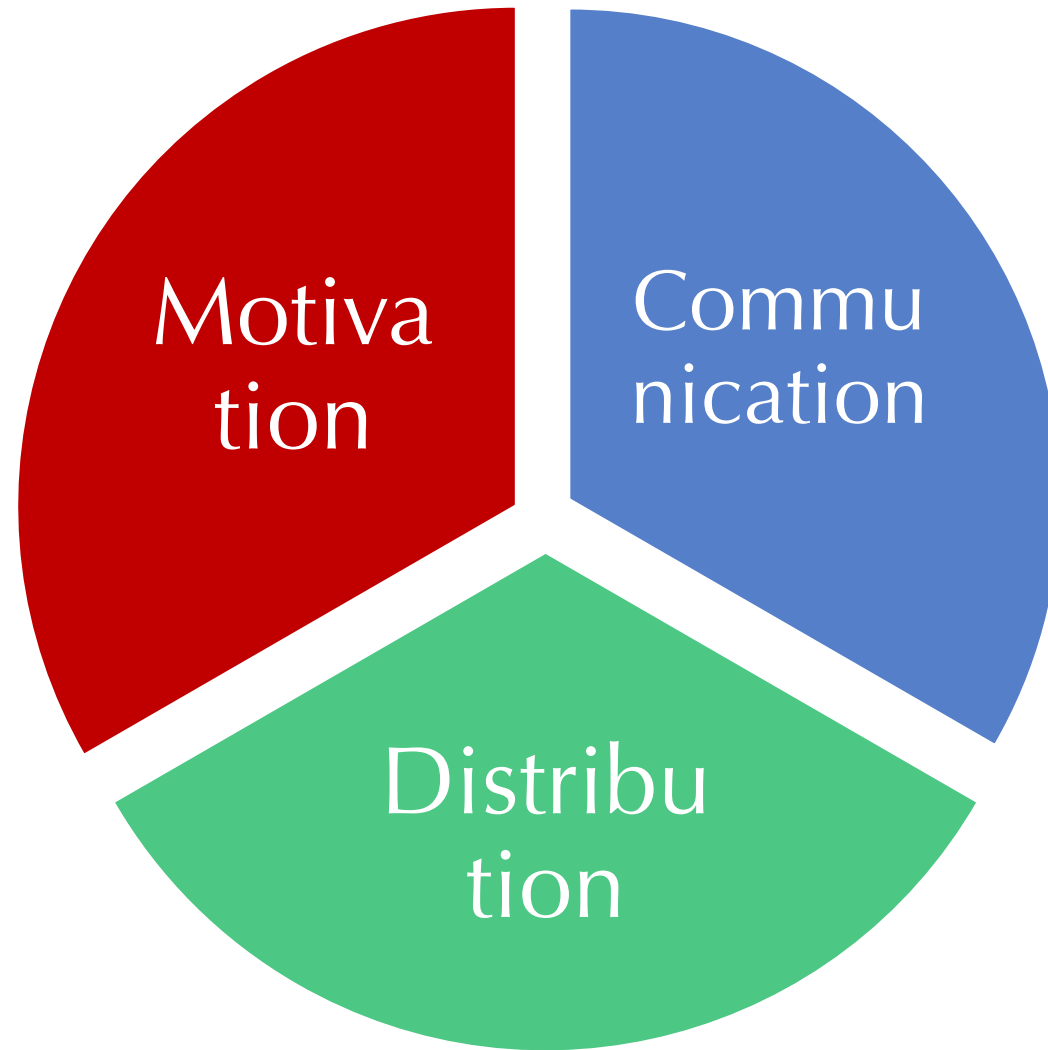
<https://indico.ihep.ac.cn/event/10892/>



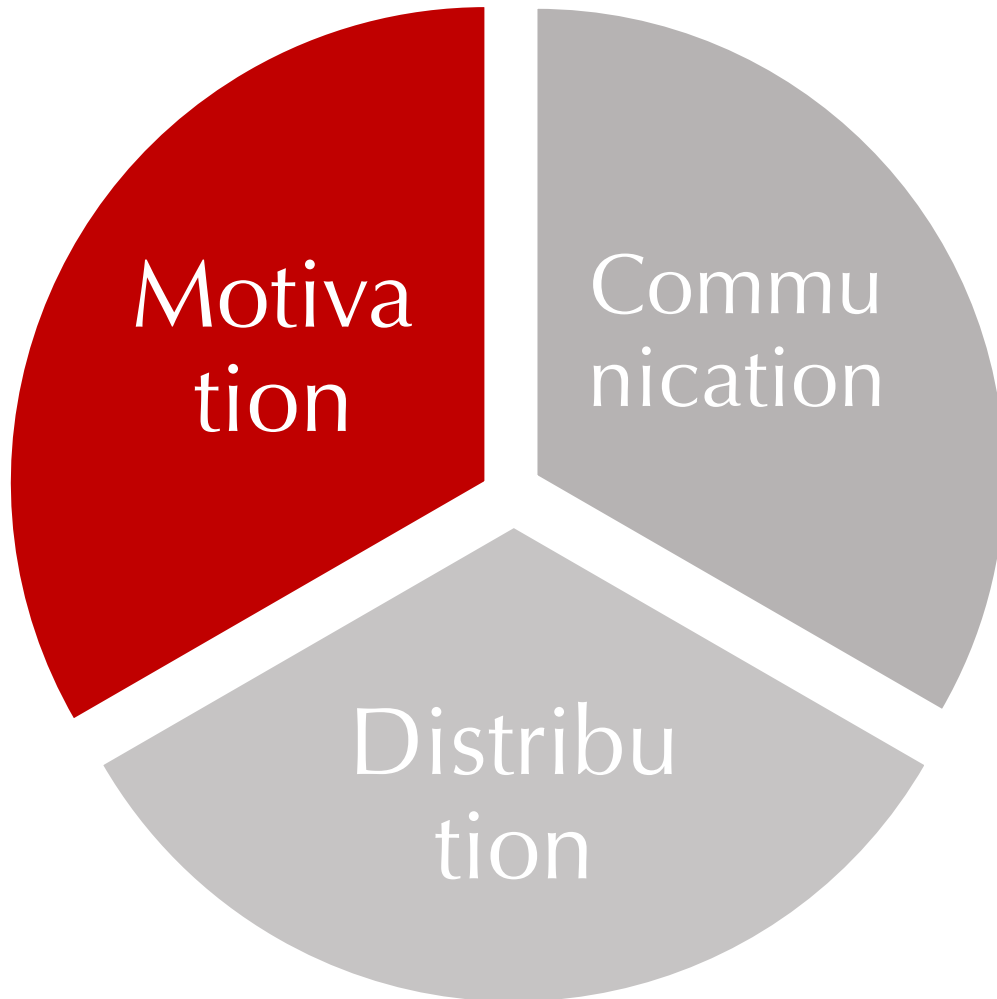
Three message from DAS-HEP-000

- One key idea: **distribution**
- One computing language: **python**
- One tool of managing tasks: **git**

Three pillars for DAS-HEP

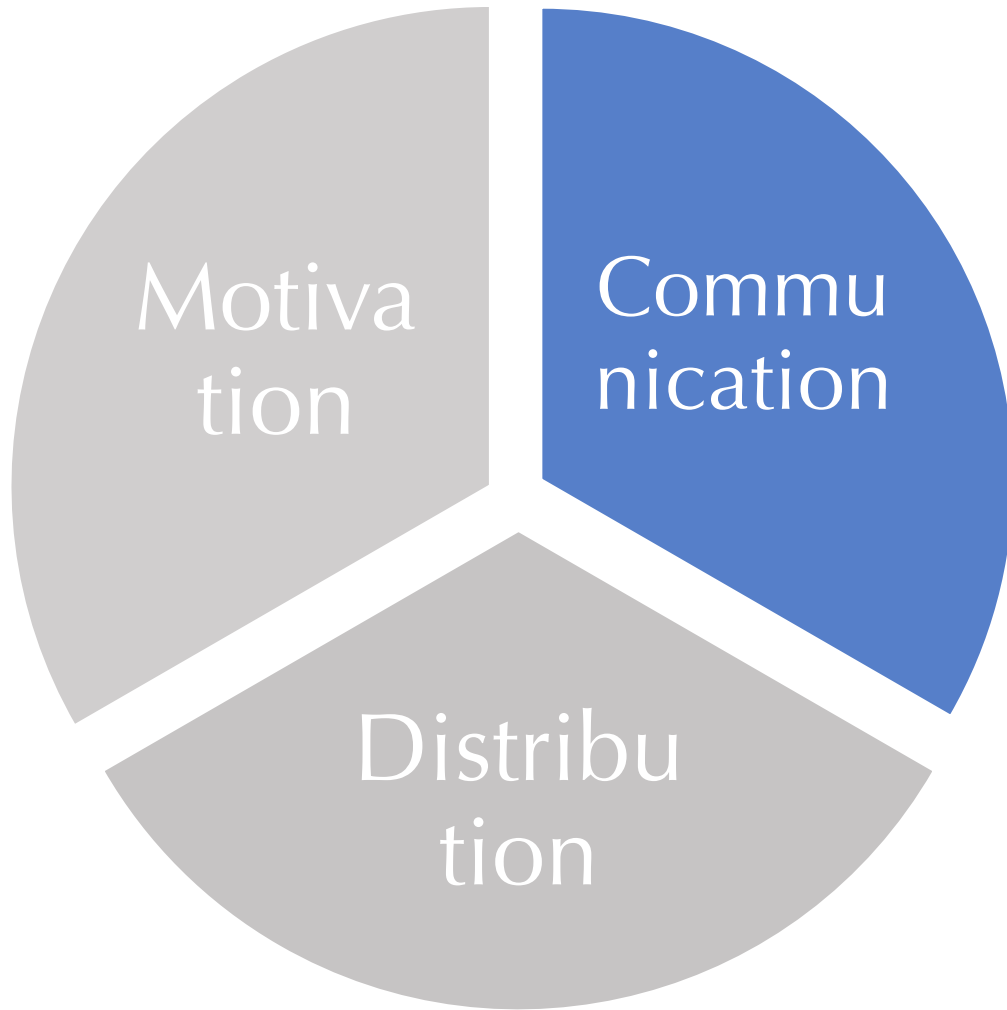


Motivation



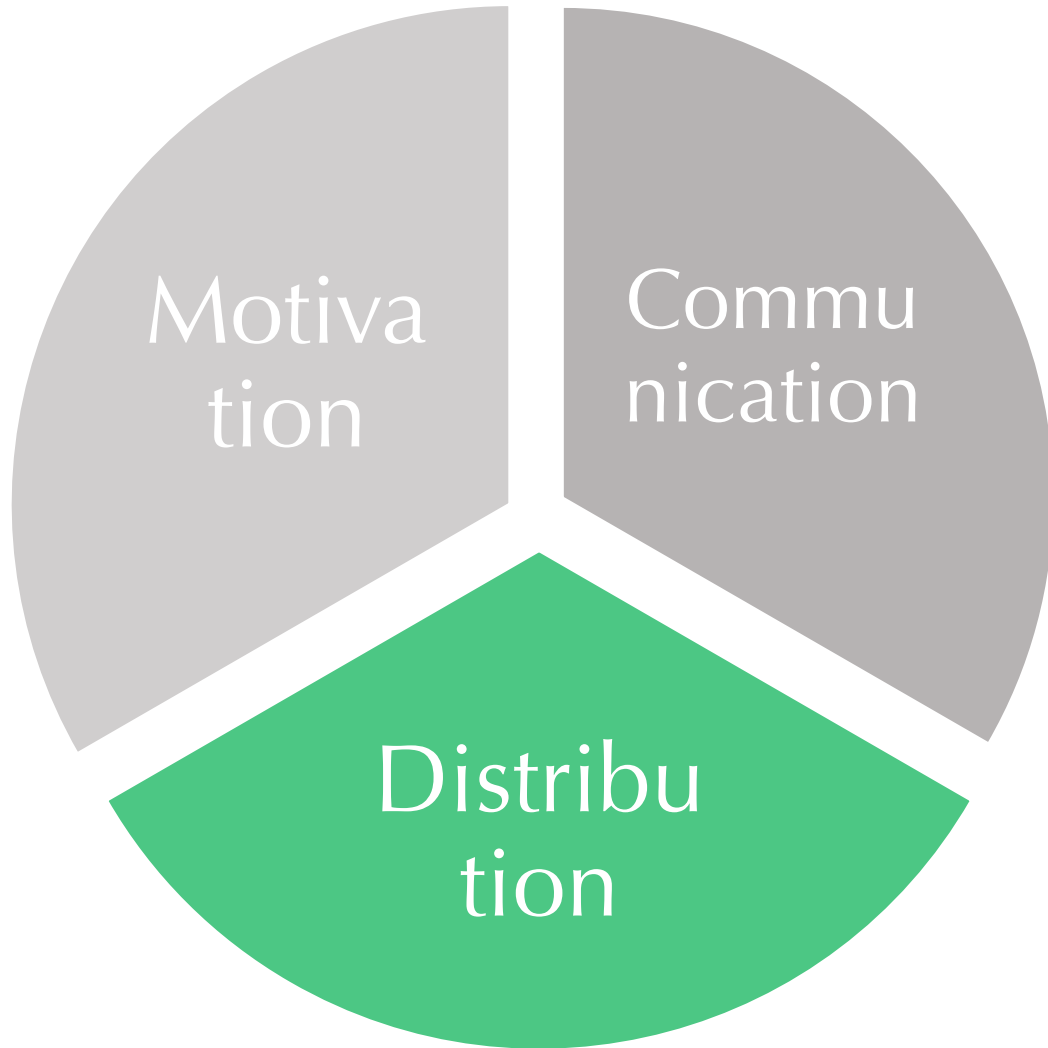
- What is the world made of ?
- Personal connection
 - Every human being is unique
 - Remove the “label”
 - Appearance, Physical, School, Wealth ...
- Trigger your “Atomic Bomb” !
- Tip#1: Flight mode

Communication



- Human language: Chinese and English
- Computer language:
 - Core algorithm : C++ (20%)
 - Fluent level: **python (70%)**
 - User level: bash (10%)
- Tip#2: just USE it !

Distribution



- Centralization vs. Distribution
 - Windows vs. Linux
 - Online News vs. WeChat
 - Classroom vs. Home work
- Advantage and Challenge
 - Adaptive pace
 - Anywhere & Anytime
 - Need well organized !
- Tip#3: **git**

Three message from DAS-HEP-000

- One key idea: **distribution**
- One computing language:
- One tool of managing tasks:



One more thing ...

How to function as a TEAM ?

- Learn through Board Game: [Puerto Rico](#)

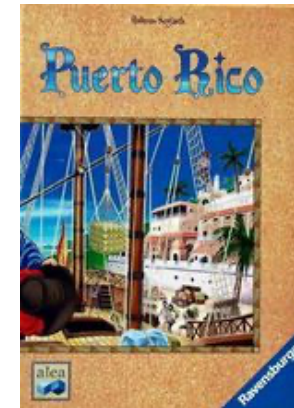


Four message from DAS-HEP-000

- One key idea: **distribution**
- One computing language:
- One tool of managing tasks:

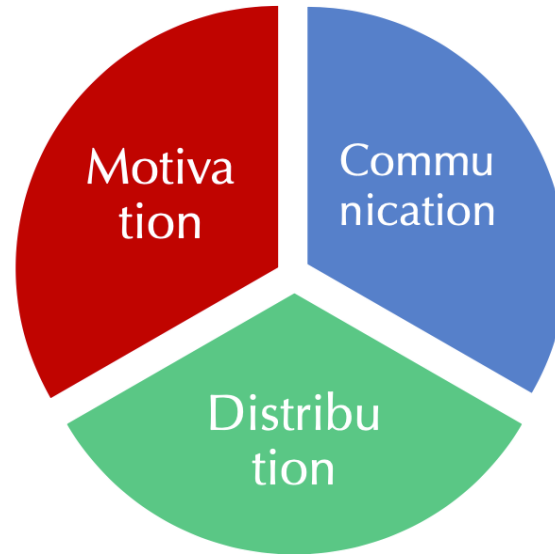


- One Game for Team work: [Puerto Rico](#)



References

- DAS-HEP Slides : <https://indico.ihep.ac.cn/event/10892/>



<https://das-hep.github.io>