Integration of THERMINATOR generator with MpdRoot environment

for NICA project

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Outline

MpdRoot

Therminator

Our progress

Difficulties and solutions

Final form and description

Results and perspectives

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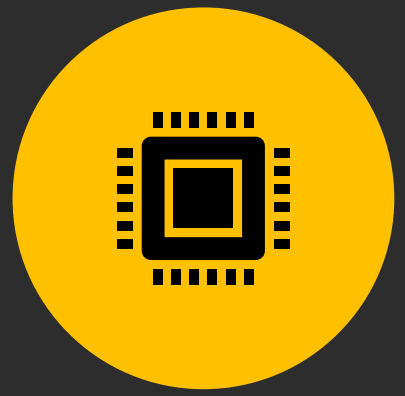
MpdRoot

SIMULATION AND ANALYSIS FRAMEWORK

PURPOSE



EXTENSION TO THE CERN'S ROOT SOFTWARE

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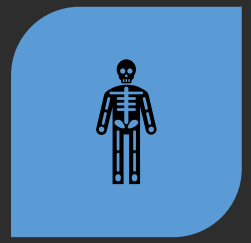
THERMINATOR

THERMAL HEAVY ION GENERATOR

MONTE CARLO METHOD

PARTICLE PRODUCTION IN RELATIVISTIC HEAVY-ION COLLISIONS



SPS, RHIC, OR LHC AND NICA IN THE FUTURE

THERMAL MODELS OF PARTICLE PRODUCTION WITH SINGLE FREEZE-OUT

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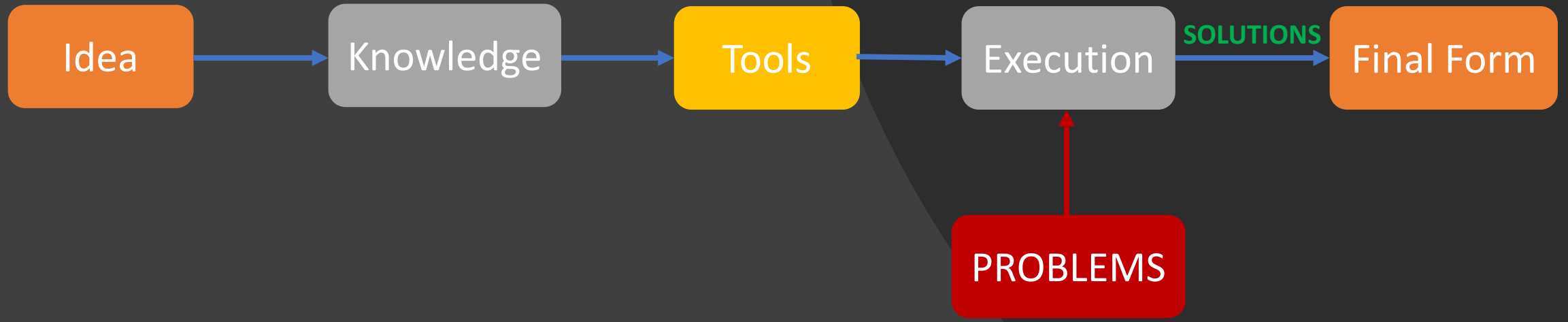
Our progress



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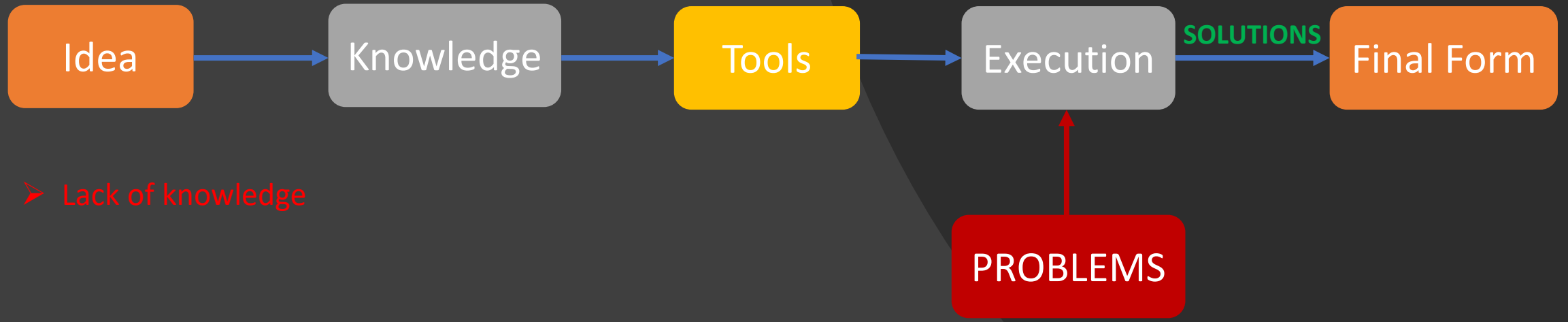
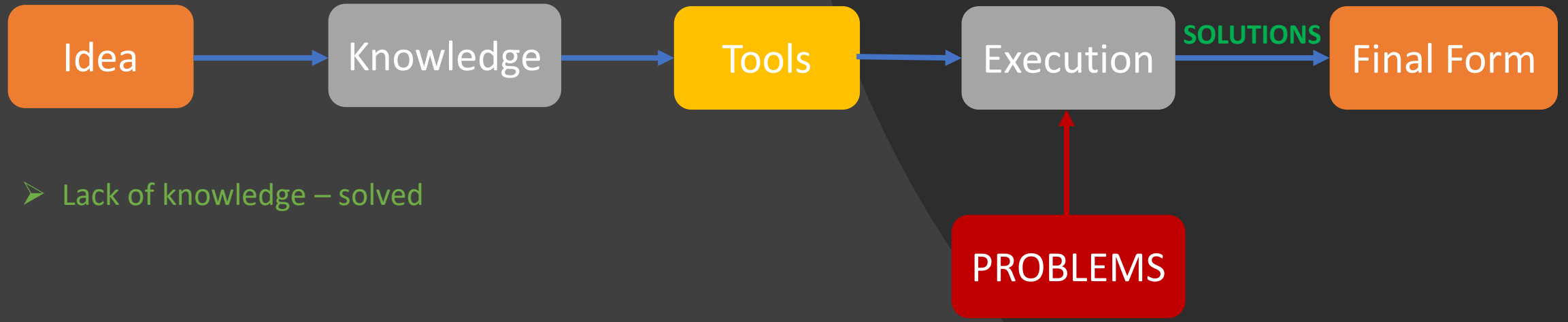
Our progress



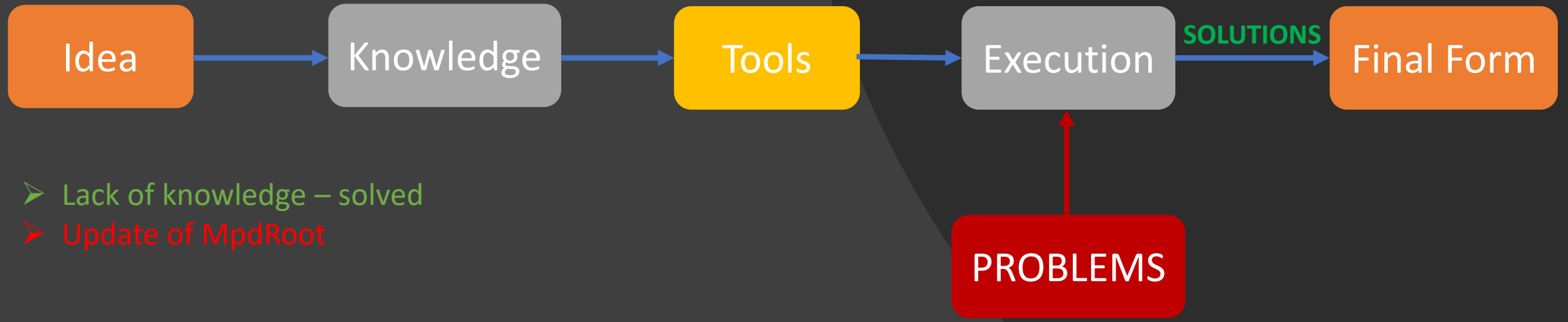
- Lack of knowledge

Our progress



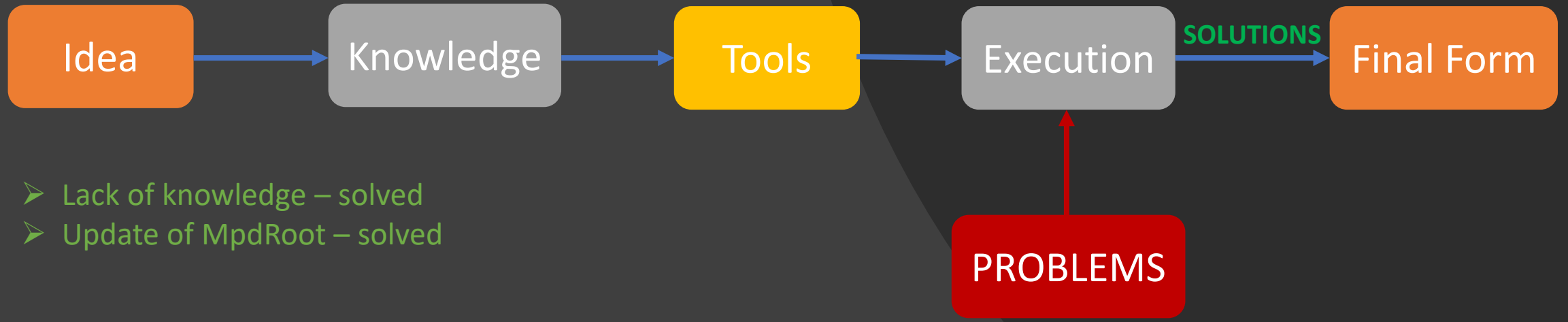
- Lack of knowledge – solved

Our progress



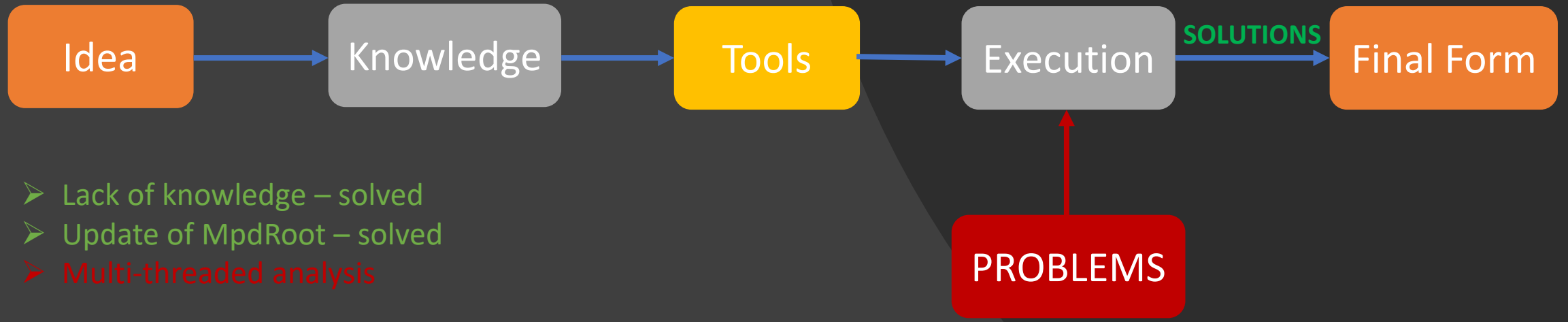
- Lack of knowledge – solved
- Update of MpdRoot

Our progress



- Lack of knowledge – solved
- Update of MpdRoot – solved

Our progress



- Lack of knowledge – solved
- Update of MpdRoot – solved
- Multi-threaded analysis

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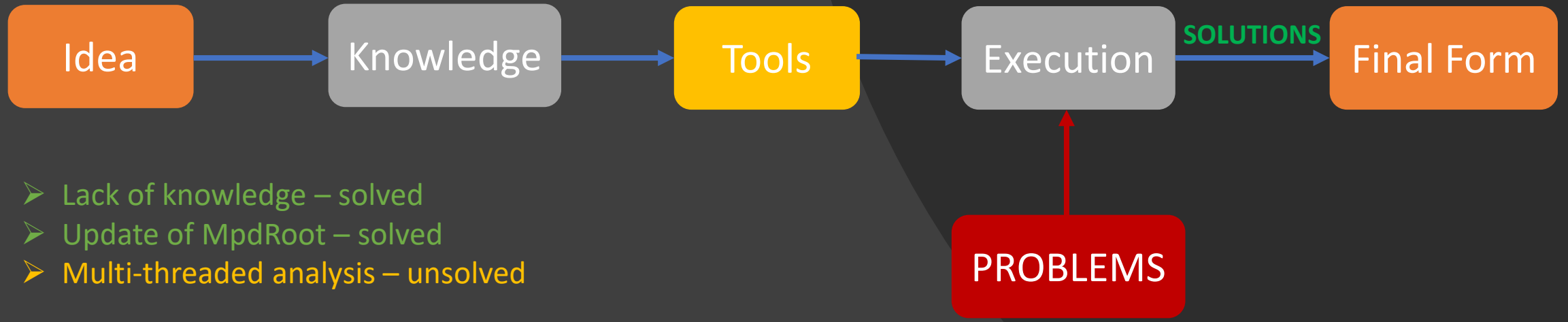
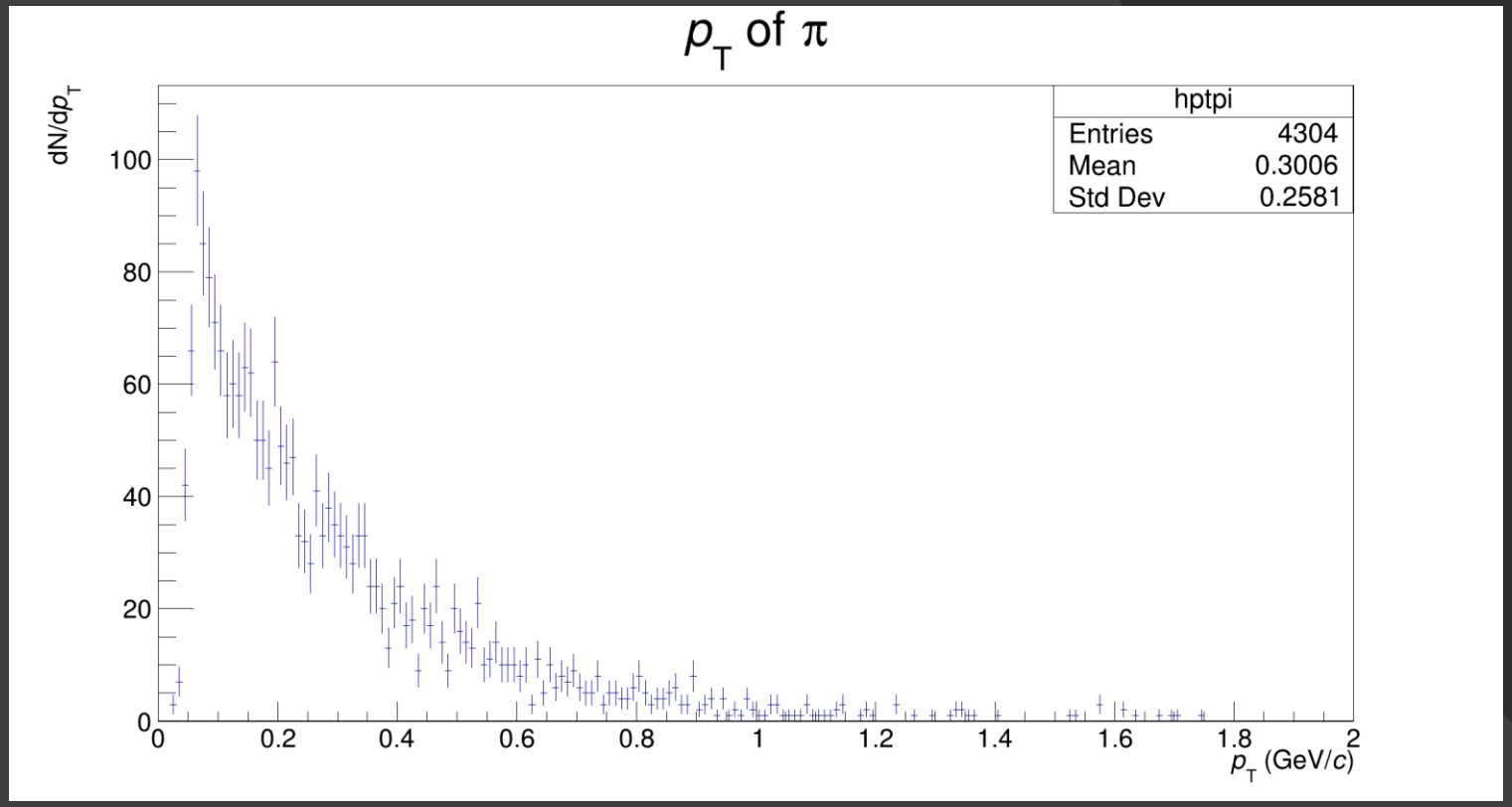
Our progress



- Lack of knowledge – solved
- Update of MpdRoot – solved
- Multi-threaded analysis – unsolved

Results and perspectives



Counts distribution in function of pions' tranverse momentum

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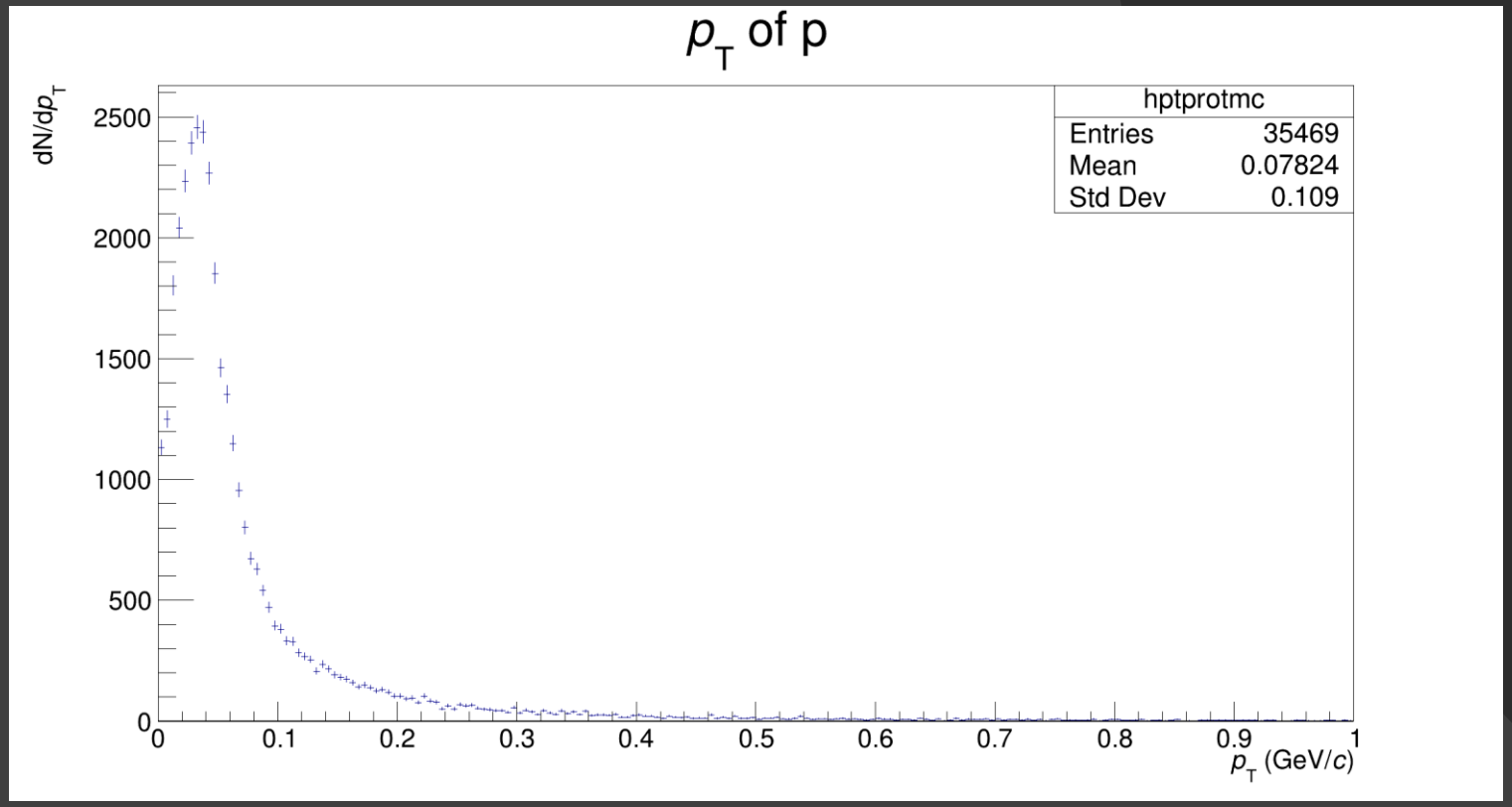
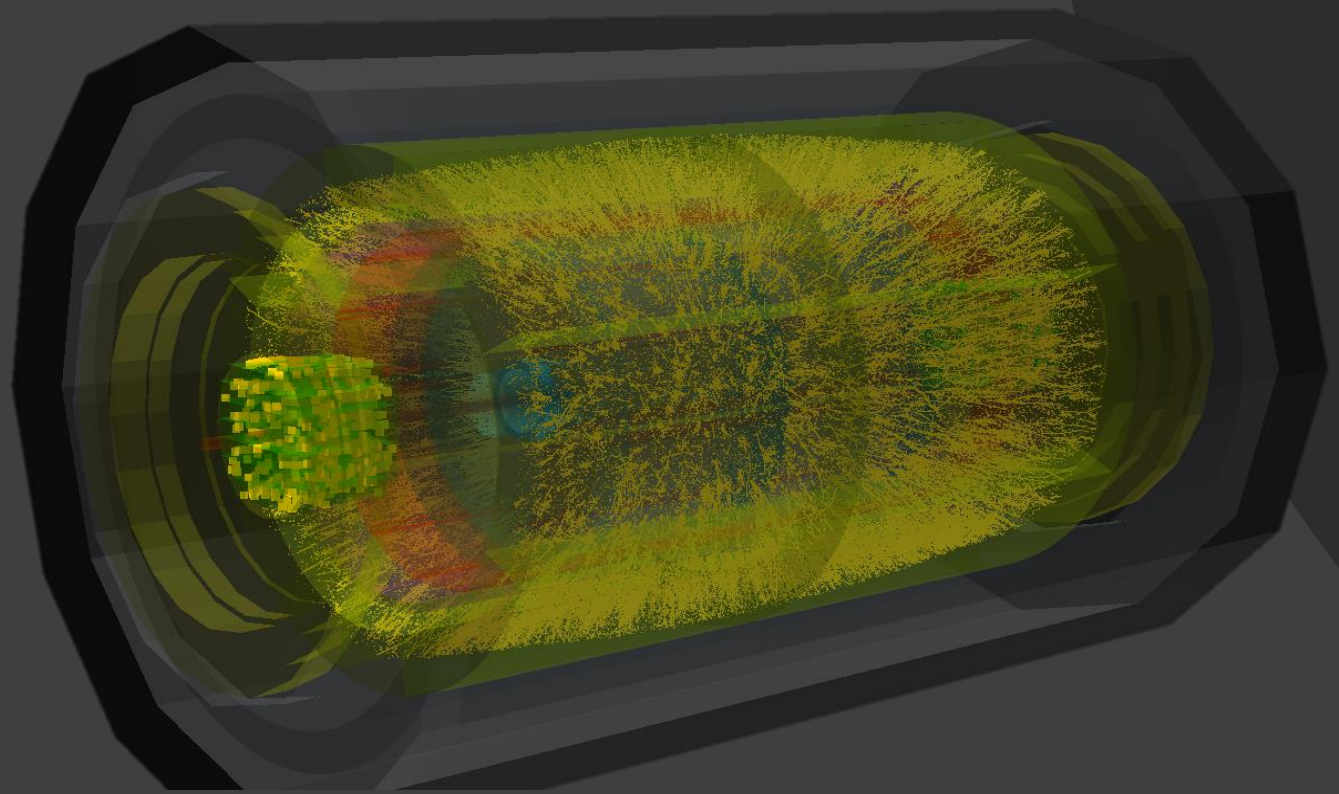
Results and perspectives



Counts distribution in function of protons' tranverse momentum

Results and perspectives



Monte Carlo points

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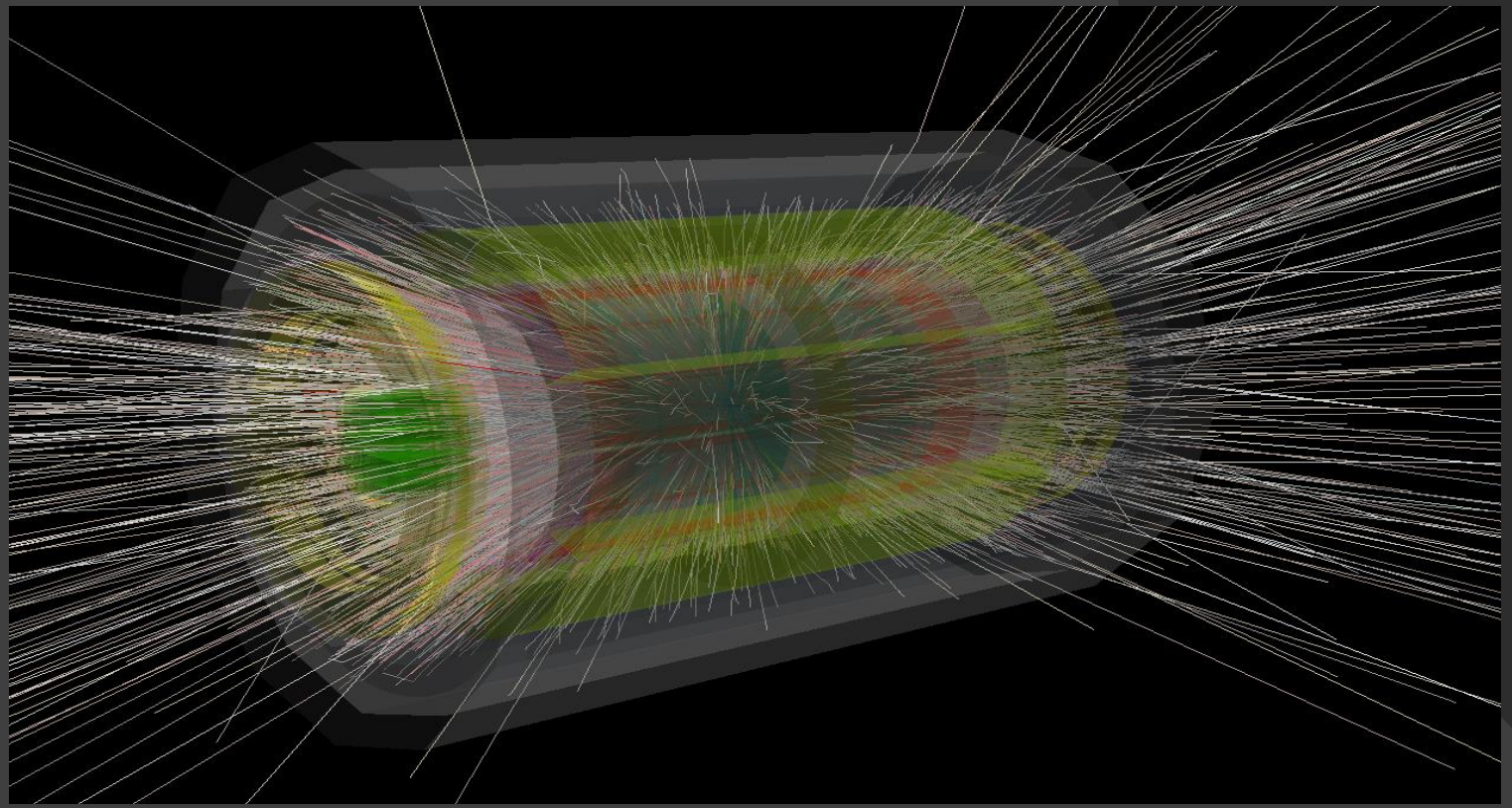
Results and perspectives



Monte Carlo points

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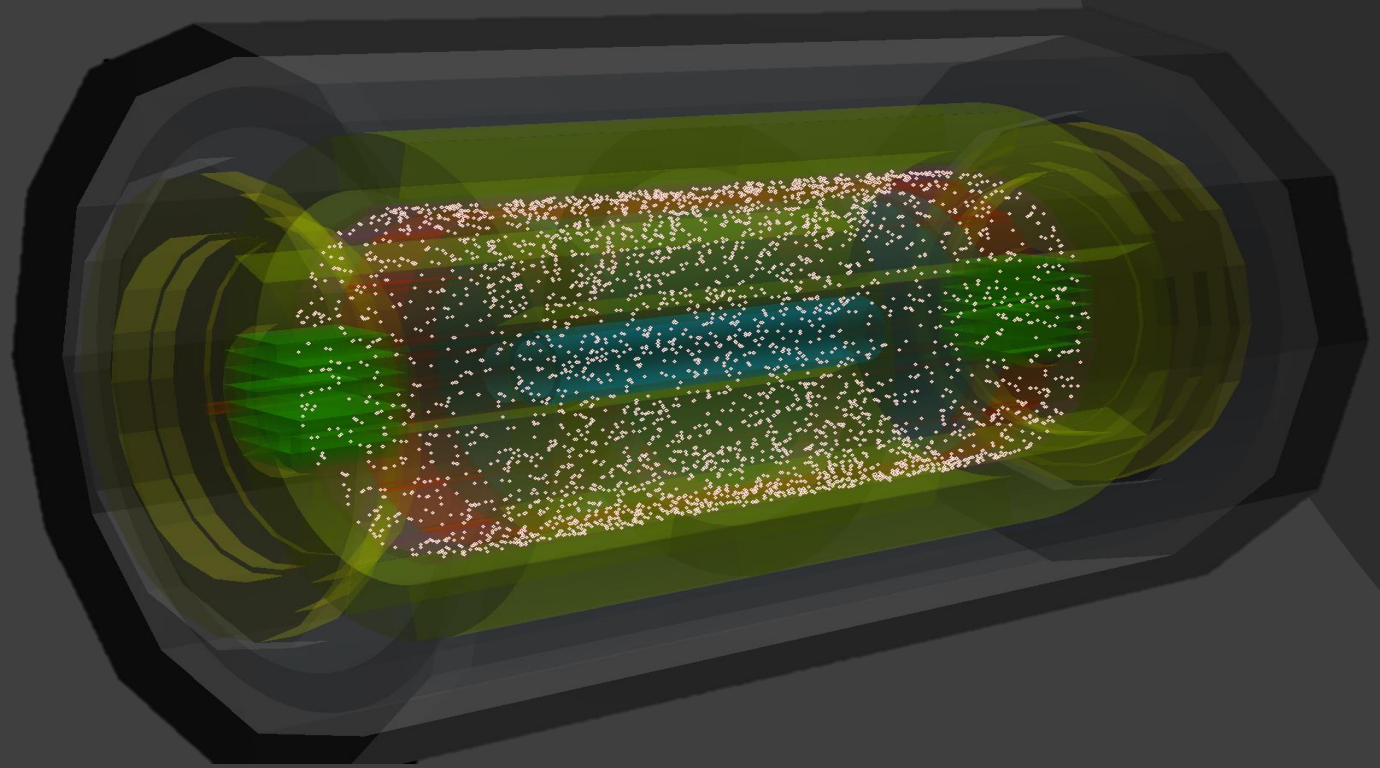
Results and perspectives



Reconstruction points

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Results and perspectives

Documentation of runTherm.C macro

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Documentation of our main macro

Thank you for your attention

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