#### Miklós++ version 70<sup>th</sup>

(subversion 13<sup>th</sup>)

#### G.G. Barnaföldi

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Gyulassy Miklós 70th , Balaton Workshop, Tihany, Hungary 18th June 2019

#### **Collaborations with a Miklós**



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## A brief history from my side..

- 1996-1997 BSc: I made a "national student research" with Peter Lévai on finding "tetraquarks" in high-energy heavy ion collisions at SPS & RHIC
- 1998-2000 MSc: with P. Lévai & G. Papp & G. Fai, to build a 1+2 D parton model based pQCD code, the later "kTpQCD" code
- 2000- PhD: Investigation of initial & final state nuclear effects in the framework of the NLO version of the kTpQCD\_v2.0  $\rightarrow$  works with Miklós
- 2015- HIJING++ in collaboration with the Miklós++ & Xin-Nian

#### The era of "++"

# 2015- from HIJING to HIJING++

- We could see the limitation of the HIJING during these studies. So I tried to convince Xin-Nian & Miklós to start a new project with updating HIJING
- They all supported the idea, but noted this will be a long journey in a big mess...
  - $\rightarrow$  Certainly we are equipped with all the features for this













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- They all supported the idea, but noted this will be a long journey...
- In January 2015 three of us, G. Papp, Sz. Harangozó & me, were at Berkeley with Xin-Nian and Miklós for a week. We made the update plan and in a week we had a 2x faster FORTRAN version → both of them were convinced
- By this time, we have a working semi-parallel, including Gábor Bíró and Bálint Csurgai-Horváth, modular C++ version of HIJING, called HIJING++ → soon to be published and make publicly available for the future.

 $\rightarrow$  Stay tuned on this, the live part of the story to be continued even tomorrow....

### So..., Miklós, finally I wish a lot of



# An early evidence for the connection between Miklós and the "++" – from Bari!



# An early evidence for the connection between Miklós and the "++" – from Bari!



## ...and Happy 70<sup>th</sup> or 13<sup>th</sup> Birthday!



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