

# Post-doc positions at NICPB

Mario Kadastik  
on behalf of the group

# Group

Group consists of three senior scientists with multiple post-docs and PhD students.

Actively participating in CMS reconstruction, particle flow and tau algorithm work.

Looking for additional post-doc level researchers to join.

Location in scenic Estonia with beautiful nature and high-tech community while enjoying frequent travel possibilities to CERN and conferences!

## **Analysis of H boson production via tt fusion process**

Measurement of H boson coupling to top quark, search for CP violation in top-H coupling, search for flavor-changing neutral current interactions

## **Analysis of H boson-pair production**

Measurement of HH production rate in  $HH \rightarrow bbWW$  and  $HH \rightarrow WWWW$ ,  $WW\tau\tau$ , and  $\tau\tau\tau\tau$  decay modes

## **Development of trigger electronics and algorithms for HL-LHC programme**

Development of trigger for  $\tau$  lepton pairs based on tracking and particle-flow event reconstruction for each proton-proton collision, at a rate of 40 million times per second, using fast electronics