



**FUN WITH DATA!**

ROOT USERS WORKSHOP 2018  
SARAJEVO, SEPTEMBER 10 - 13

# ROOT Workshop

Axel Naumann, Architects' Forum,  
2018-10-18

## WORKSHOP TOPICS

- ROOT ROADMAP
- TDATAFRAME, A MODERN TTREE::DRAW()
- ON THE WAY TO ROOT 7:  
GRAPHICS, HISTOGRAMS, TREES
- NEW PERSISTENCY FEATURES
- PARALLELISM IN AND WITH ROOT
- ROOT IN JAVASCRIPT
- MACHINE LEARNING IN AND WITH ROOT
- MATH TOOLS AND TECHNIQUES
- USER FEEDBACK

## ORGANIZERS

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## CONTACT

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# Stats + Slides

- 3.5 days in Sarajevo
- 69 contributions at <https://cern.ch/root2018>
- 110 participants
  - invited speakers including Chandler Carruth (Google), Peter Müßig (SAP) and Sylvain Corlay (QuantStack)
- CERN Bulletin article in next issue

# Challenges

- ROOT has excellent connections to experiments' framework people
- Want at least as much feedback from analysis physicists!
  - need to lure them into the workshop
- Create open discussions where experts and non-experts engage
- Avoid "o we're so good" but challenge state and plans instead

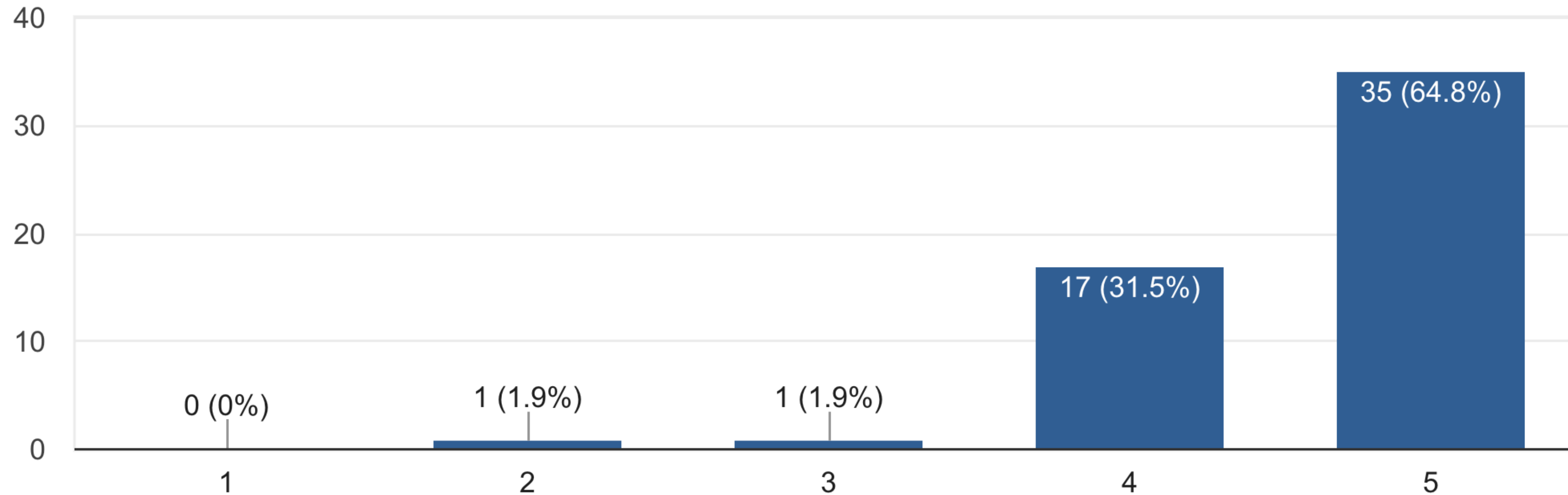
# Sarajevo, Sept 10-13



# ROOT Workshop Survey

- Solicited feedback soon after the workshop
- Email sent to everyone registered
  - ROOT team members did not fill it in
- 54 responses, about 50%!

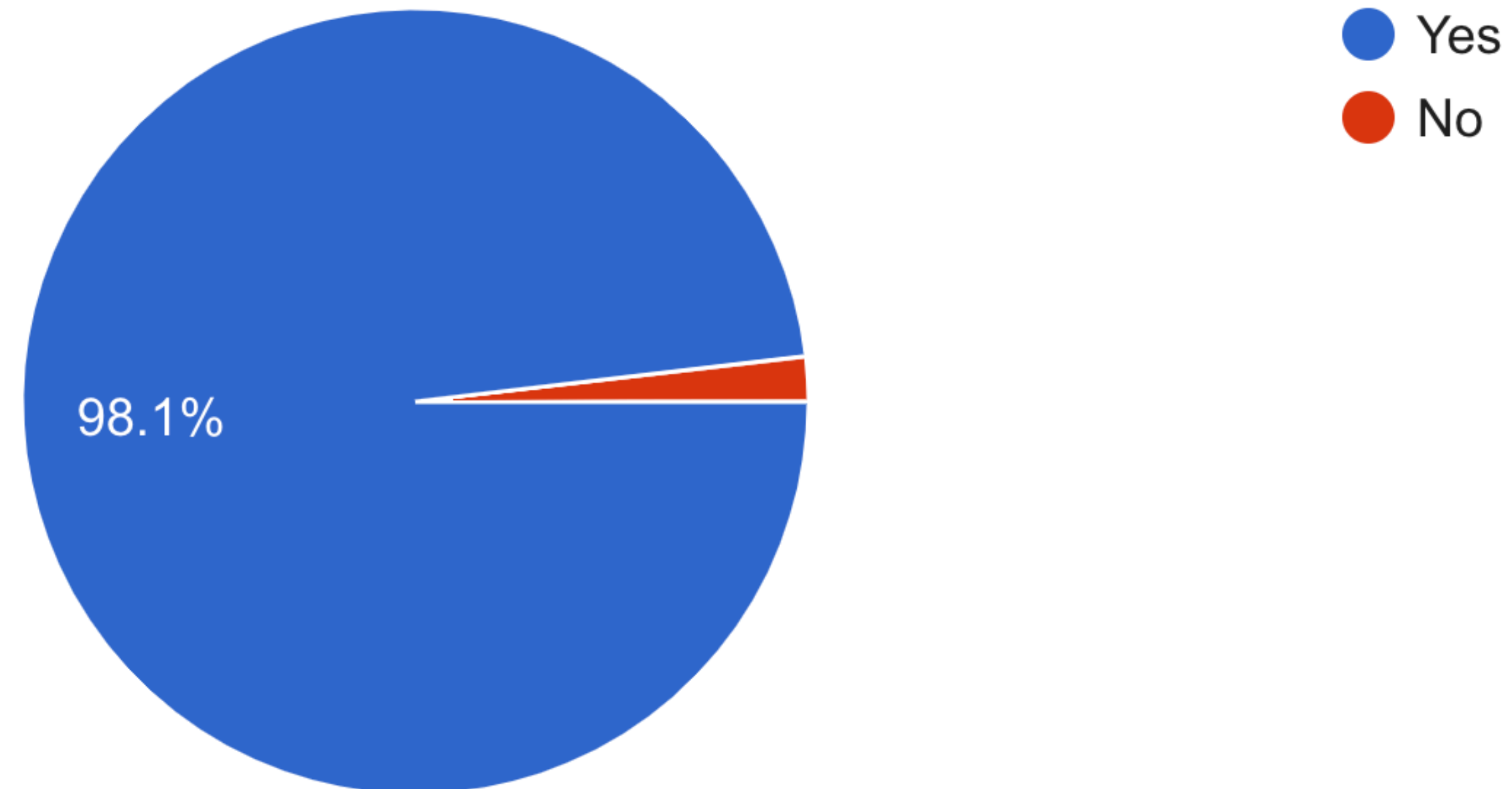
# "Did you like it?"



- 96% "above average"

# "Would you recommend other people to come to the next ROOT workshop?"

- Resounding "yes, this is useful"



# "What at the workshop did you like most?"

- Presentations ("diverse", "speakers were all well prepared"), explicitly highlighting industry talks ("broadened my view on programming and career paths")
- Discussions ("interaction"), also with developers; "ability to find all relevant people from the ROOT universe in one place"
- Being exposed to upcoming features
- General atmosphere: "constructive", "friendly", "pragmatic", "concrete", "interesting", "helpful"
- location, food



# "How can we advertise the next workshop better?"

- We did well for ATLAS, people notices posters @ CERN
- Clarify intent / scope (versus "workshop")
- More aggressive ads on websites (root.cern, forum)
- Social media
- Local media

# "How else can we improve the next workshop?"

- Separate novice-level talks from experts' talks; level too high for PhD students for some presentations; "Not encourage people presenting their very first steps in the world of programming"
- Live ROOT coding; interactive parts; training ("to attract younger audience")
- "Maybe you should organise feedback sessions of smaller size on shorter basis than few years."
- "Awards (e.g. ROOT mug)" for most active participant

# "Comments"

- "great workshop, thanks for organizing!"; "I certainly had fun with this conference :)"; "Thank you for big event for our small country"
- "I really enjoyed this workshop and it was a great overview to be introduced to the recent features; some of which I didn't know were implemented or on the road map. My compliments to the organization!"
- "I learned a lot but also got the chance to meet a lot of interesting people and share many ideas."
- "it was a big pleasure having been part of it!"
- "Seeing many commenting, asking questions and providing opinions (and not often seniors) it appears the workshop goals were achieved: a community forum where even the youngest feel free to express their opinion."
- "I have already told every single students in my group to go to the next ROOT workshop."

**And Now?**

# From Workshop to Work

- Workshop serves as input for next plan of work
  - to be discussed with experiments in December + January
  - presented in SFT in February
- Most workshop participants are happy with what ROOT is working on
  - plus several nice ideas ("novice forum") already implemented or planned for 2019