



K R A K O W S K A
INTERDYSCYPLINARNA
SZKOŁA DOKTORSKA



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3rd year's Students Seminar

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HOW THE PRESENTATION SHOULD LOOK LIKE

Content

- ⦿ Motivation
- ⦿ Basic structure
- ⦿ Technical side
- ⦿ About form
- ⦿ Summary

Motivation

- To teach PhD students how to give a good presentation
- Duration: 10 min, 20 min or 1h (here **15 min**)
- Audience: experts, students, kids (here **non expert scientists**)
- Conference talk or internal seminar (here **presentation „a la defence”**)

Structure of the presentation

- Title slide (**1 slide**)
 - Give the topic
 - Personal information
 - Affiliation (& logo)
 - Date
- Outline (**1 slide**)
- Motivation (**couple of slides**)
 - Why is it interesting?
 - State of the art
 - What is new?
- Body (**adjusted to time duration**)
 - Major content: text, plots, tables, ...
- Summary (**1 slide**)
 - Mayor, key items you want the audience remember
- Backup (**as many as you wish**)
 - Everything you wanted to show but there is no time for it

Technical side

- ⦿ Usually 1 slide per minute
 - 50% more if you are not a native speaker
 - **Keep on timing**
- ⦿ Does not matter whether it is Power Point, OpenOffice or latex → be an expert in one of them
 - You are responsible for your presentation
 - Ask organizers which format is supported
- ⦿ Check whether you are allowed to show plots, tables, etc. → **consult** your supervisor
- ⦿ Use footer → page number helps
- ⦿ Give a source of plot, calculations, etc. if they are not yours
- ⦿ Use **spell checkers** or ask your friend
- ⦿ Speak slowly enough to be understood
- ⦿ Do not show and say everything you know → leave some space for a discussion

Form

1. Coherent presentation

- Similar look of each slide
- Theme

2. Colors

- Two or max three major
- 60/30/10 % rule

3. Typography

- One font is enough (max. two)
- Use several versions: bold, italic, ...
- 20 pts size fits well

4. Information in one slide

- Do not write everything
- Do not overload the slide(s) → split
- Do not write to little

Form – cont.

5. **Not only text**

- Use plots, graphics, tables, animations

6. **Make it unique**

- Bring devices, crystals, exhibits and show to the odeon

7. **Multimedia**

- Justify each slide transition or sound

8. **Clear structure**

- Make title slide(s) and secondary slides

9. **Contrast and legibility**

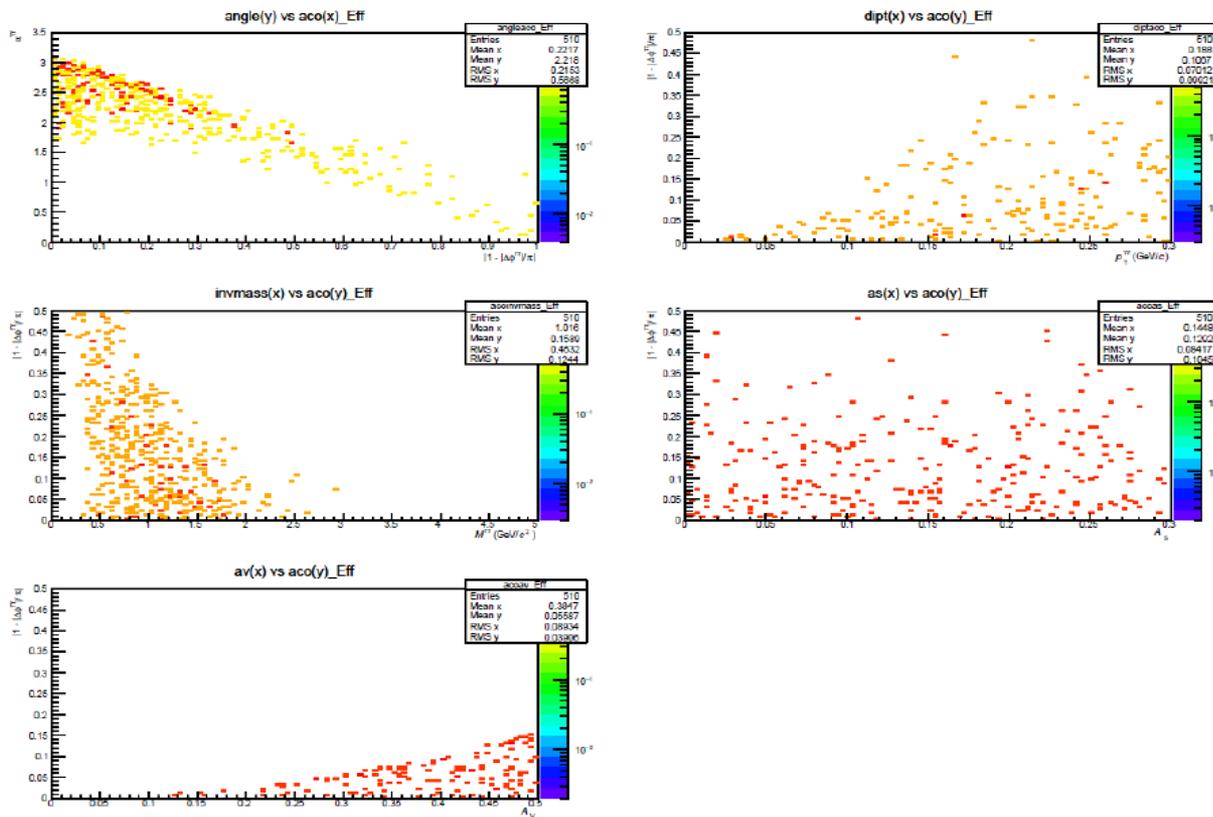
- Usually large distance and bad quality projector

10. **Figures, research and statistics**

- Make them visible: axis fonts, descriptions

Bad example – too few info

CEP $\eta\eta$ distributions



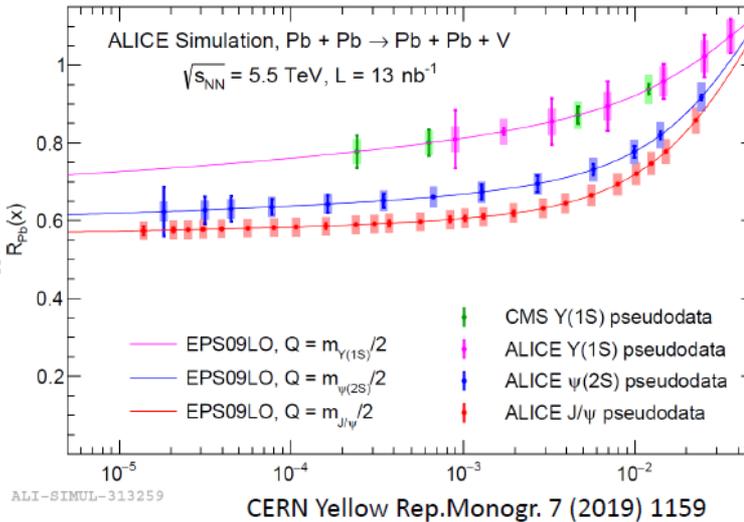
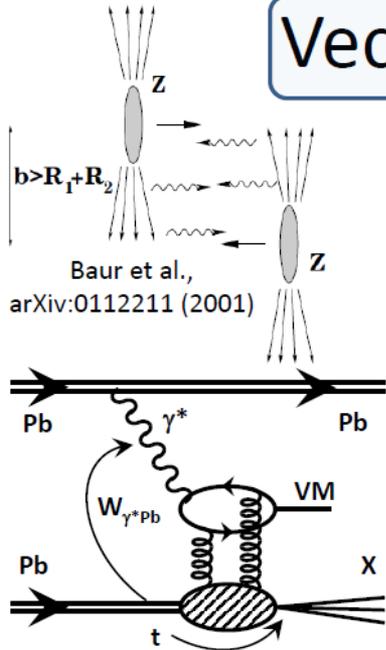
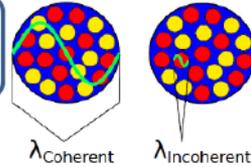
2022-03-15

Adam Matyja - LbyL - UPC PAG Meeting

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Bad example - overcrowded

Vector meson photoproduction in Run3+4



Ultra-peripheral collisions (UPC)

- Hadronic interactions suppressed
- Photon flux $\sim Z^2$ ($Z_{Pb} = 82$)
- Large γ -induced interaction cross section
- Rapidity gap(s)

Coherent Vector Meson (VM) photoproduction:

- Photon couples coherently to all nucleons
- $\langle p_T^{VM} \rangle \sim 1/R_{Pb} \sim 50 \text{ MeV}/c$

Incoherent VM photoproduction:

- Photon couples to a single nucleon
- $\langle p_T^{VM} \rangle \sim 1/R_p \sim 400 \text{ MeV}/c$
- Usually accompanied by neutron emission

Meson, channel	$\sigma^{\text{Pb-Pb}}$	N^{Tot}	$N^{ \eta < 0.9}$	$N^{-4 < \eta < -2.5}$
$\rho^0 \rightarrow \pi^+ \pi^-$	5.2 b	68×10^9	5.5×10^9	-
$\rho' \rightarrow \pi^+ \pi^- \pi^+ \pi^-$	730 mb	9.5×10^9	210×10^6	-
$\phi \rightarrow K^+ K^-$	0.22 b	2.9×10^9	82×10^6	-
$J/\psi \rightarrow \mu^+ \mu^-$	1.0 mb	14×10^6	1.1×10^6	600×10^3
$\psi(2S) \rightarrow \mu^+ \mu^-$	30 μb	400×10^3	35×10^3	19×10^3
$\Upsilon(1S) \rightarrow \mu^+ \mu^-$	2.0 μb	26×10^3	2.8×10^3	880

$L_{\text{Pb-Pb}} = 13/\text{nb}$

Total luminosity 13x greater than in Run 2!

- Address **gluon shadowing in nuclei** at low x_B
- Constrain gluon distribution in **transverse plane**
- Allow for **scale dependence** of gluon shadowing studies with different meson species

Preparations

- ⦿ Start doing early enough
- ⦿ **Content** is important
- ⦿ Think about **what** you want to say on each slide
- ⦿ Think **how** you want to say
- ⦿ Say it → **rehearsal**
- ⦿ Give the presentation

⇒ Good practice is to remember **key sentences by heart** in each slide or at least first two slides

⇒ In large collaborations presentation should be ready at least 2 weeks in advance

Summary

- ⦿ Basic structure and form of the presentation was shown
- ⦿ Several technical aspects were mentioned
- ⦿ Nobody is perfect but can improve
- ⦿ Remember: we are scientists → content is more valuable than form!
- ⦿ Be well prepared to answer questions