

JFGfest : Lundi 20 septembre 2010

Statistikeries



Plan de l'expose

- 1) Objectifs
 - a) le scandale
 - b) le respect
 - ~~i) Crazy Horse Saloon~~
 - ii) Publication commune
- 2) Doctorant(e)s
 - a) beaucoup
 - b) une erreur (de ma part)
- 3) JFG is the Best
 - a) critères
 - b) deux coups de cuillère a pot
- 4) CELLO
 - a) Tagging
 - b) Le scandale révélé
- 5) La conjecture de JFG
 - a) formalisme
 - b) dégats collateraux
- 6) Conclusion

JFG a ete en charge des seminaires
du LAL et la coutume veut que l'orateur
soit invite a diner



1) Erratum to: On the determination of a mass lower limit for the Higgs boson in the presence of candidate events.

J.F. Grivaz, F. Le Diberder, (Orsay, LAL) . LAL-92-45, Aug 1992. 5pp.

[LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [BibTeX](#)

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2) Complementary analyses and acceptance optimization in new particle searches.

J.F. Grivaz, F. Le Diberder, (Orsay, LAL) . LAL-92-37, Jun 1992. 7pp.

[LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [Harvmac](#) | [BibTeX](#) | [Keywords](#) | Cited [1 time](#)

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3) On the determination of a mass lower limit for the Higgs boson in the presence of candidate events.

J.F. Grivaz, F. Le Diberder, (Orsay, LAL) . LAL-92-23, Apr 1992. 8pp.

Published in **Nucl.Instrum.Meth.A333:320-323,1993.**

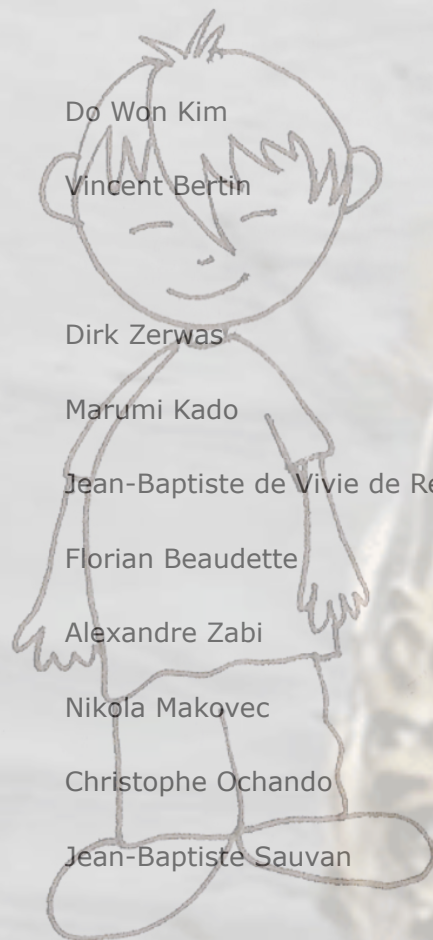
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Journal Server [doi:[10.1016/0168-9002\(93\)91173-K](#)]

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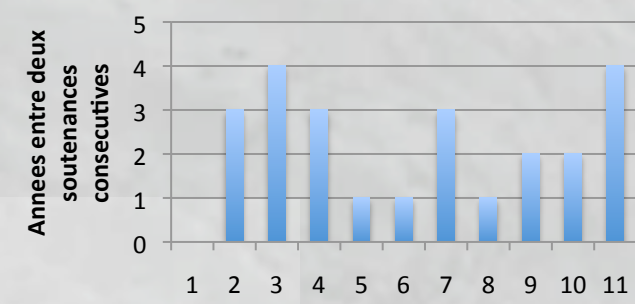
10

Sans commentaire



Marie Jacquet

1



1988

1991

1995

1998

1999

2000

2003

2004

2006

2008

2012



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73. PROPERTIES OF HADRONIC EVENTS IN e^+e^- ANNIHILATION AT $S^{*(1/2)}$ $\sqrt{s}$.
 (74) **ALPH** Collaboration (D. Decamp (Annecy, LAPP) *et al.*). CERN-EP-89-139. C
 26 pp.
 Published in **Phys.Lett. B234 (1990) 209**

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [EndNote](#)
[Journal Server](#)
[ADS Abstract Service](#)
[CERN Library Record](#)
[Science Direct](#)
[Reaction Data \(Durham\)](#)

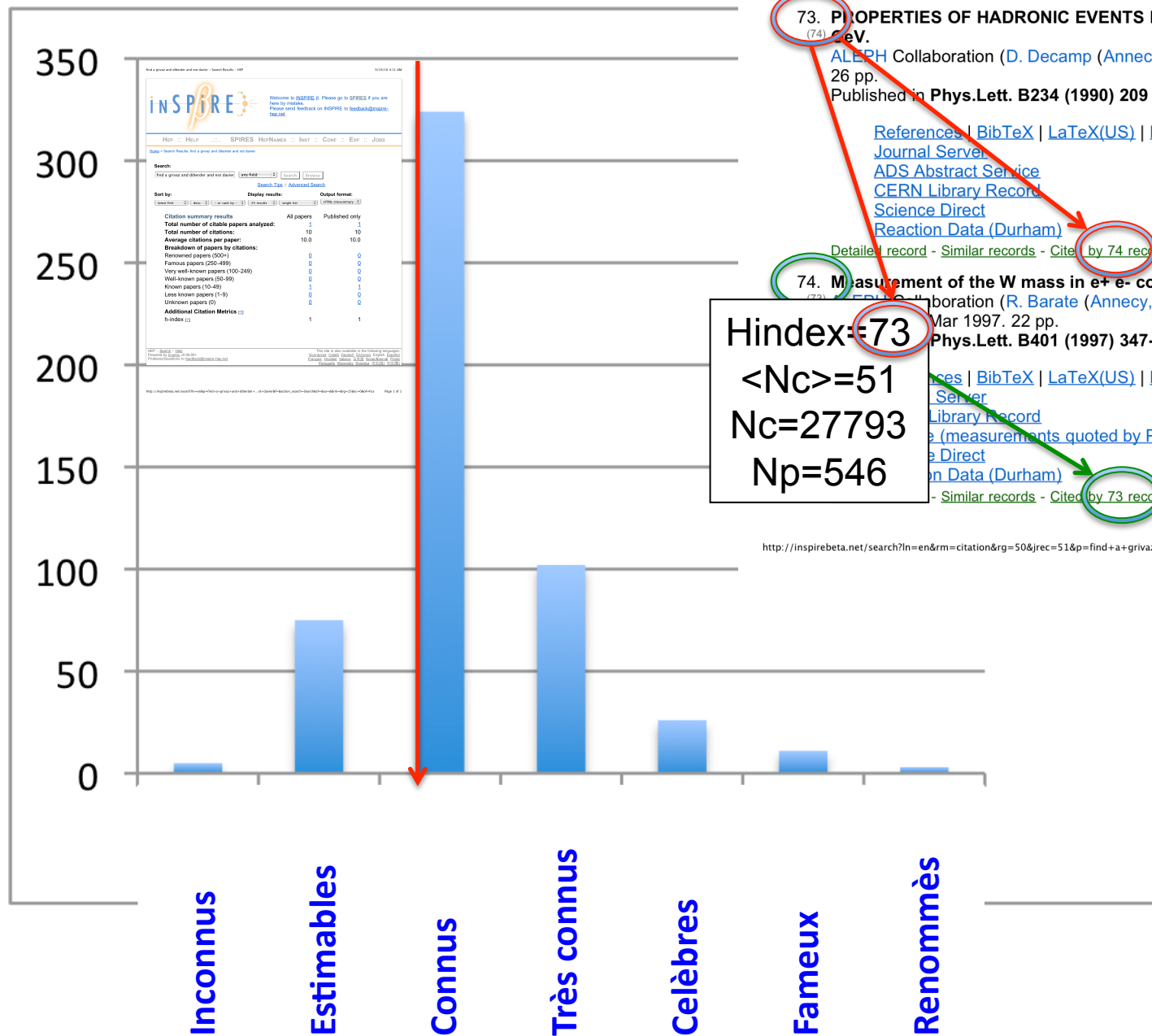
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74. Measurement of the W mass in e^+e^- collisions at production threshold.
 (73) **LEP** Collaboration (R. Barate (Annecy, LAPP) *et al.*). CERN-PPE-97-025, C
 Mar 1997. 22 pp.
 Published in **Phys.Lett. B401 (1997) 347-362**

[References](#) | [BibTeX](#) | [LaTeX\(US\)](#) | [LaTeX\(EU\)](#) | [EndNote](#)
[Journal Server](#)
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<Nc>=51
Nc=27793
Np=546



	Renomes	Fameux	Celebres	Tres connus	Connus	Estimables	Inconnus	Np	Nc	<Nc>	H
JFG	2	13	45	145	452	201	26	884	34779	39	85
	3	10	49	109	393	91	3	659	30641	47	84
	3	10	38	129	376	143	5	704	31047	44	80
	3	11	26	102	324	75	5	546	27793	51	73
	2	5	21	99	287	130	8	552	21748	40	70
	1	9	24	70	181	53	1	339	17668	52	69
	1	7	22	68	149	27	4	278	15156	55	67
	1	5	9	53	226	78	8	380	13686	36	56
	3	3	9	23	102	24	5	169	9026	53	44
	0	4	5	22	54	12	0	97	5287	55	42
	2	2	7	16	39	9	4	79	5421	69	36
	0	0	2	10	77	26	1	116	2803	24	28

Hypothese h_0 : JFG est le meilleur

Analyse statistique : JFG+Orateurs+4LAL-DreamTeam



	Renommés	Fameux	Célèbres	Très connus	Connus	Estimables	Inconnus	Np	Nc	<Nc>	H
	2	13	45	145	452	201	26	884	34779	39	85
	3	10	49	109	393	91	3	659	30641	47	84
	3	10	38	129	376	143	5	704	31047	44	80
JFG	3	11	26	102	324	75	5	546	27793	51	73

Coupure 1 : H

Tres efficace contre les theoriciens et les jeunes

Hypothese h_0 : JFG est le meilleur

Analyse statistique : JFG+Orateurs+4LAL-DreamTeam



	Renomes	Fameux	Celebres	Tres connus	Connus	Estimables	Inconnus	Np	Nc	<Nc>	H
JFG	3	11	26	102	324	75	5	546	27793	51	73

Coupure 2 : <Nc>

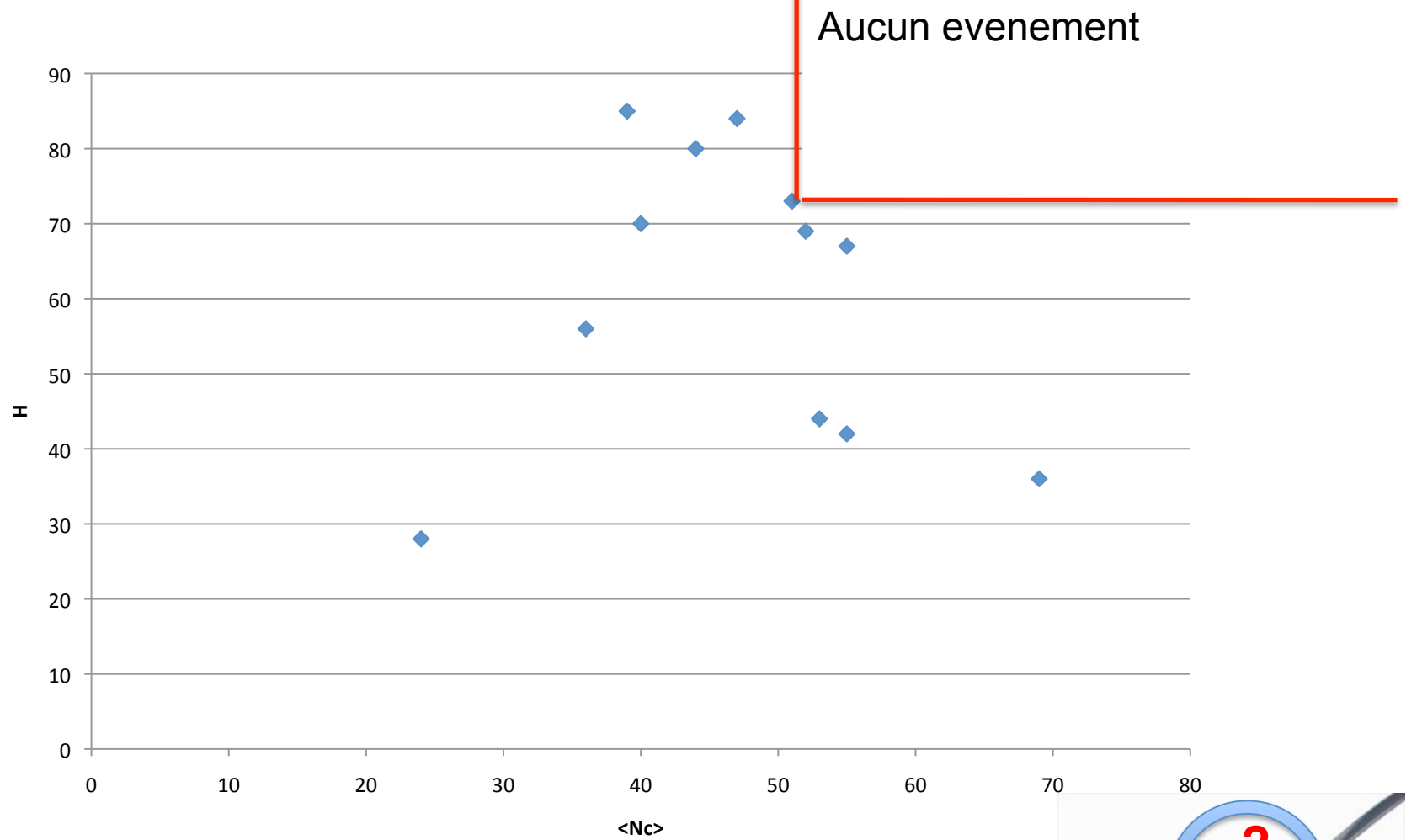
Coupure 1 : H

=> (Aride) **démonstration formelle** de la validité de h_0

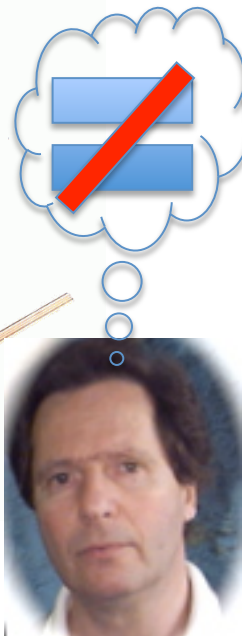
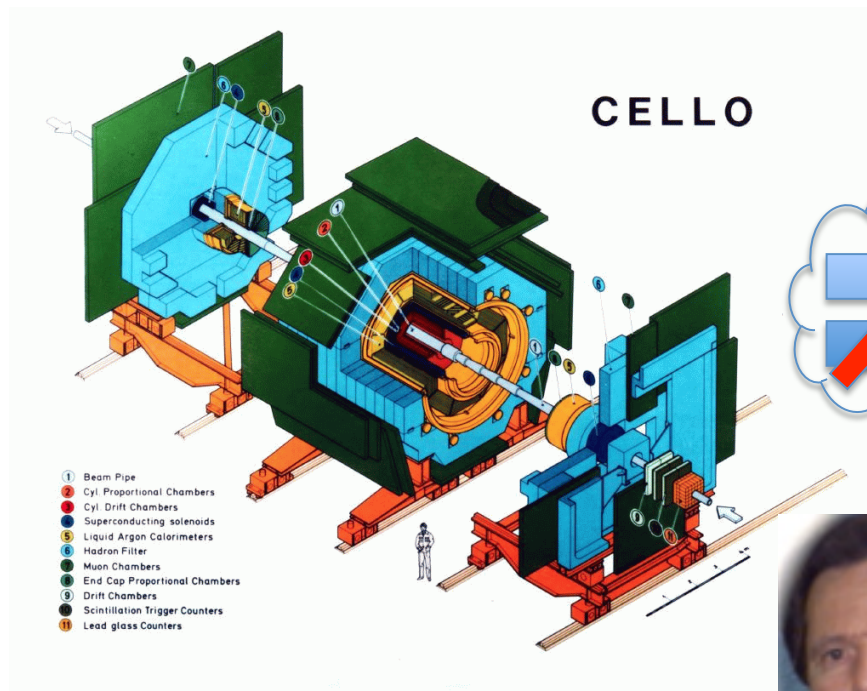
Hypothese h_0 : JFG est le meilleur

Analyse statistique : JFG+Orateurs+4LAL-DreamTeam





Le dilemme de JFG





A SEARCH FOR SINGLE PHOTONS AT PETRA

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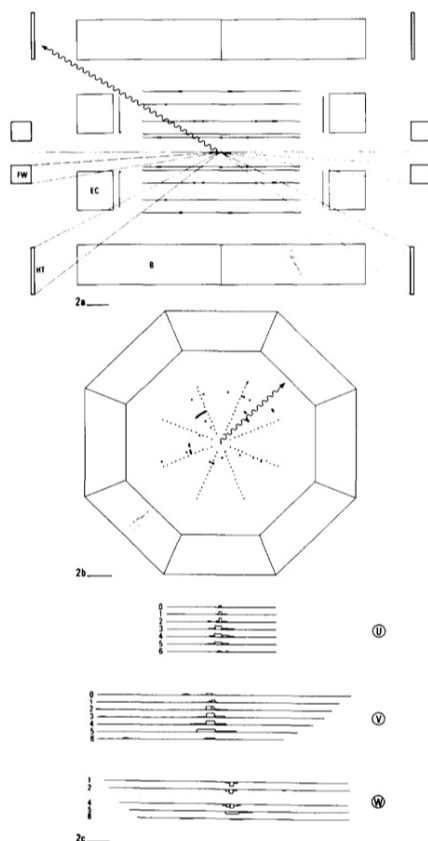


For footnotes see next page.

The large cosmic background still surviving the timing cut was drastically reduced by requiring:

- (i) that the shower longitudinal and lateral developments be compatible with those of a photon coming from the interaction region, and
- (ii) that the direction of the photon shower points toward the interaction vertex within $\pm 2\sigma$, both in polar angle and in azimuth.

The losses of good events introduced by this procedure were determined using the photons of eey final



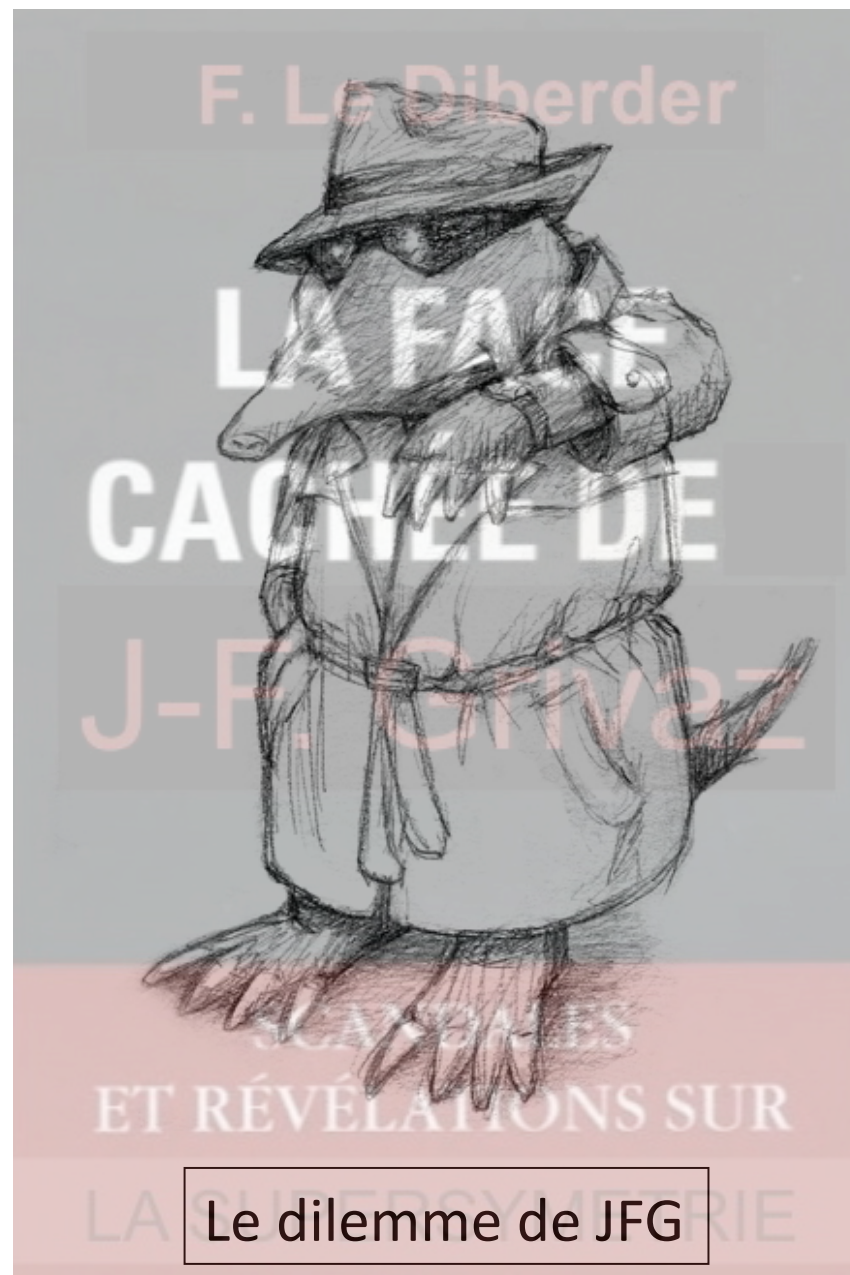
state events with all particles measured in the barrel calorimeter (QED-II sample). Finally, a specific algorithm was developed to search for strings of hits in the central detector aligned with the direction of the photon showers, thus allowing further rejection of cosmic particles.

At this stage, the remaining sample or 4.5 K events consisted mostly of photons from QED reactions leading to additional electromagnetic showers. These were vetoed by a signal in the hole tagger, in the end cap calorimeter, or in the lead glass array. An example of a single photon event vetoed in the hole tagger is shown in fig. 2. This procedure was slightly complicated by the presence of a $20 X_0$ long conical copper absorber in the 100 – 130 mrad angular range, installed at 50 cm from the interaction point to shield the central detector against synchrotron radiation. Most of the energy of a beam electron scattered in this direction is absorbed, but some lateral leakage is always expected. In the worst cases, only low-energy particles emerge, but they can still be detected through hits in the end cap chambers. This problem however only affects electrons accompanying low- x_T photons ($x_T < 0.15$). For such photons, the veto energy threshold in the end cap calorimeter was decreased, and the hit pattern in the end cap chambers was used in additional rejection criteria. The losses introduced by these various vetos were determined using events triggered at random beam crossings ("random" sample).

The 30 events surviving at this stage were scanned. All could be unambiguously rejected:

- (i) by a characteristic hit pattern in the central de-

Fig. 2. This event was triggered by the 10 GeV photon which can be seen in the barrel calorimeter. The final state can be interpreted as $\gamma\gamma\gamma$, with the second photon (indicated by a wiggled line) detected in the hole tagger, and the third one remaining inside the beam pipe. The hits in the central detector are due to synchrotron radiation. (a) and (b) are projections into planes containing the beam axis and transverse to it respectively. The various components of the calorimeter coverage are indicated: barrel (B) and end cap (EC) lead liquid-argon calorimeter, hole tagger (HT) and forward lead glass array (FW). The data of the calorimeter module containing the shower are displayed in (c). The lead strips of the 7 layers in the U direction run parallel to the beam, those of the 7 layers in the V direction transverse to it, and those of the 5 layers in the W direction at 45° with respect to U and V. The magnification varies with the depth so that a shower pointing to the interaction vertex always appears perpendicular to the layers.



The large cosmic background still surviving the timing cut was drastically reduced by requiring:

- (i) that the shower longitudinal and lateral developments be compatible with those of a photon coming from the interaction region, and
- (ii) that the direction of the photon shower points toward the interaction vertex within $\pm 2\sigma$, both in polar angle and in azimuth.

The losses of good events introduced by this procedure were determined using the photons of our final

state events with all particles measured in the barrel calorimeter (QED-II sample). Initially, a specific algorithm was developed to search for strings of hits in the central detector aligned with the direction of the photon showers, thus allowing further rejection of cosmic particles.

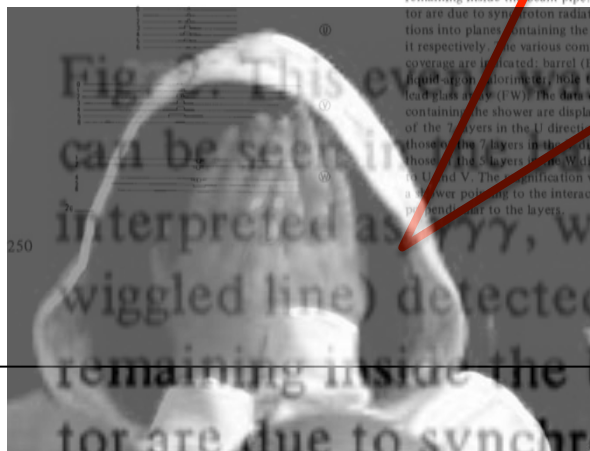
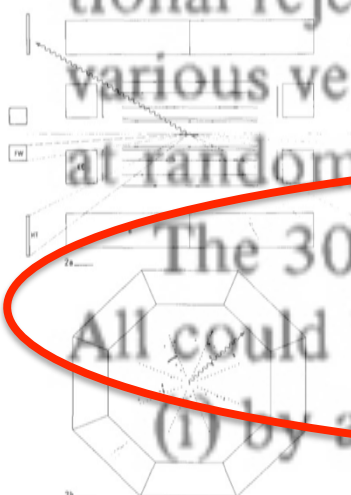
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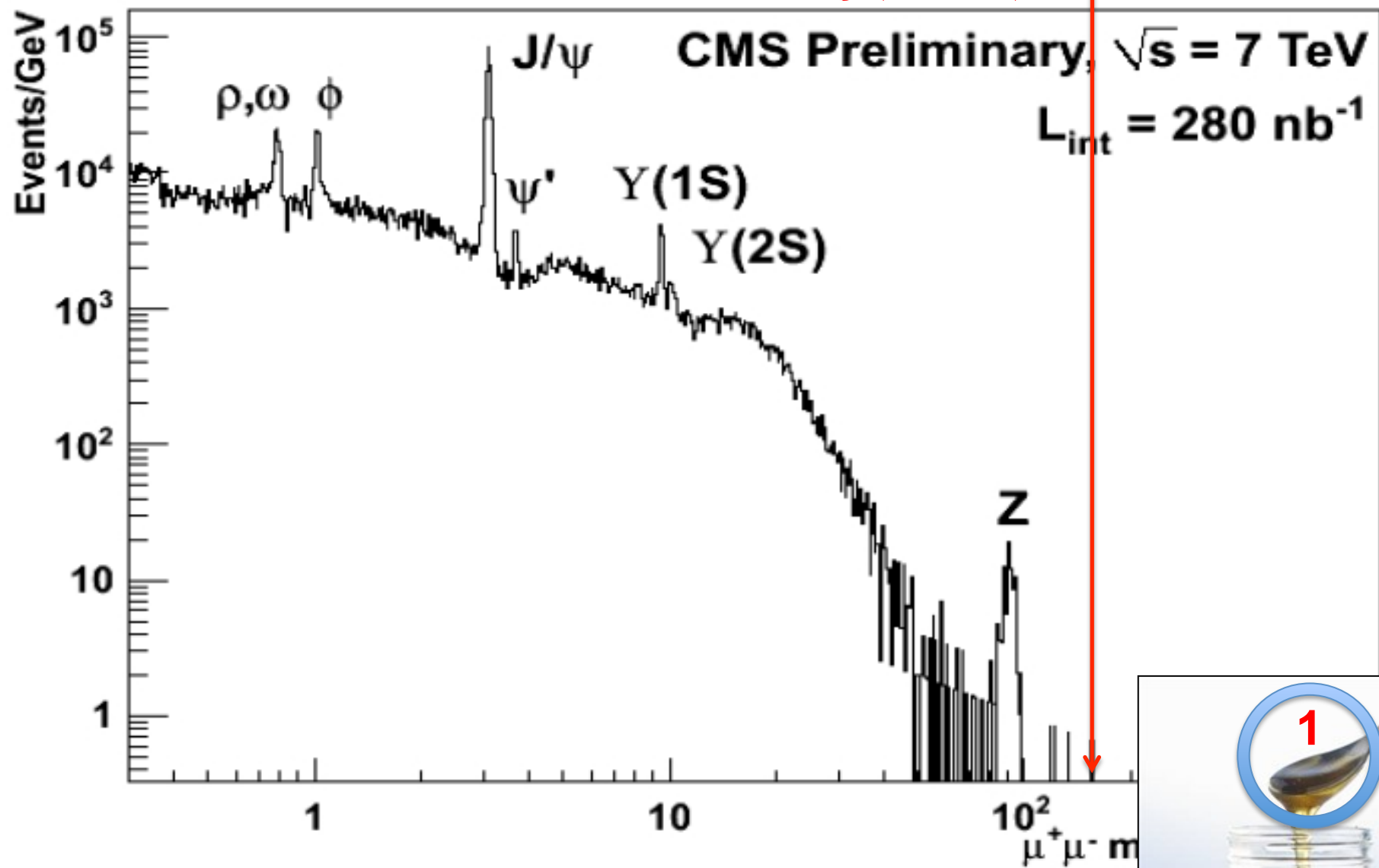
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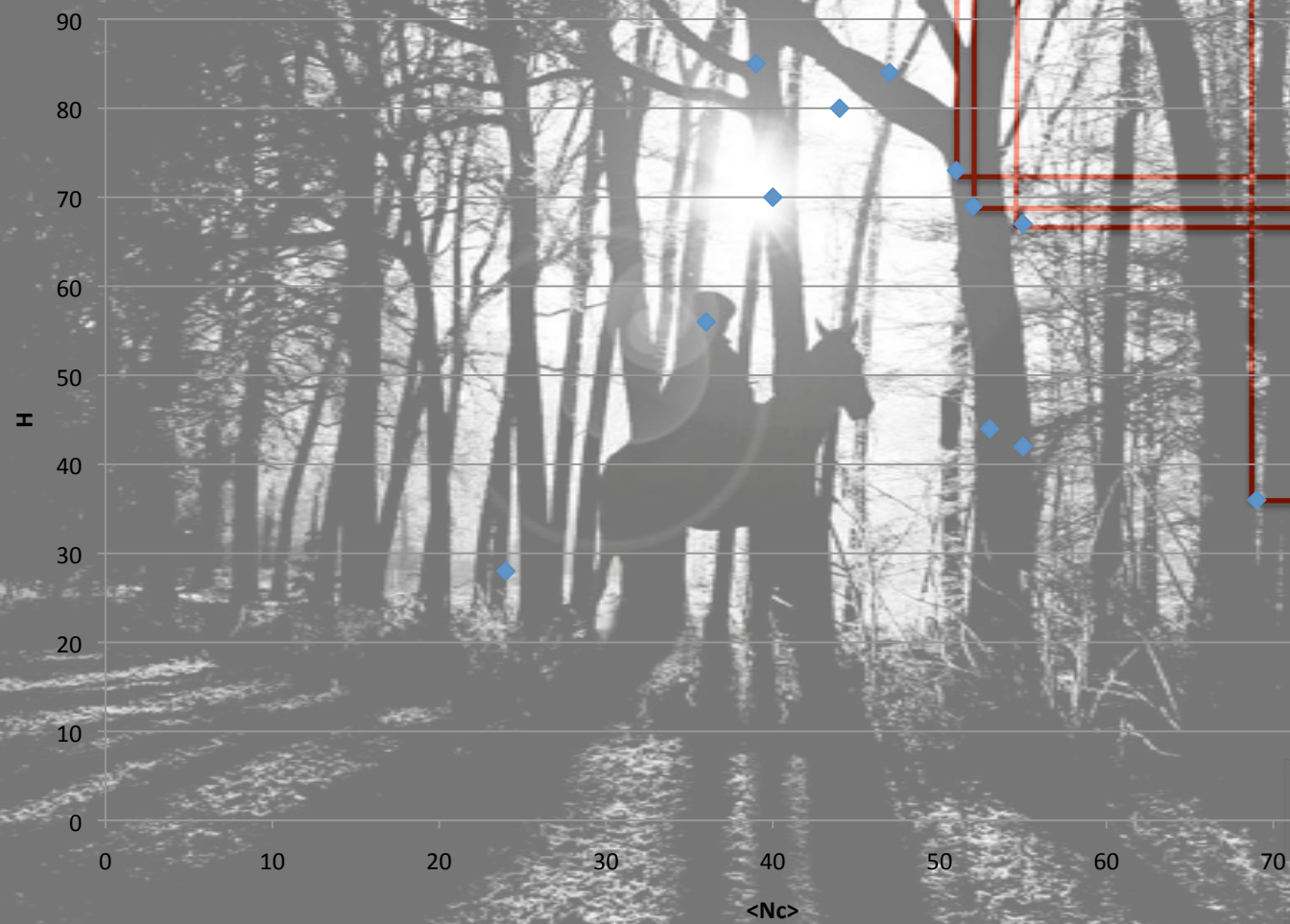




CONJECTURE
de J-F. G.

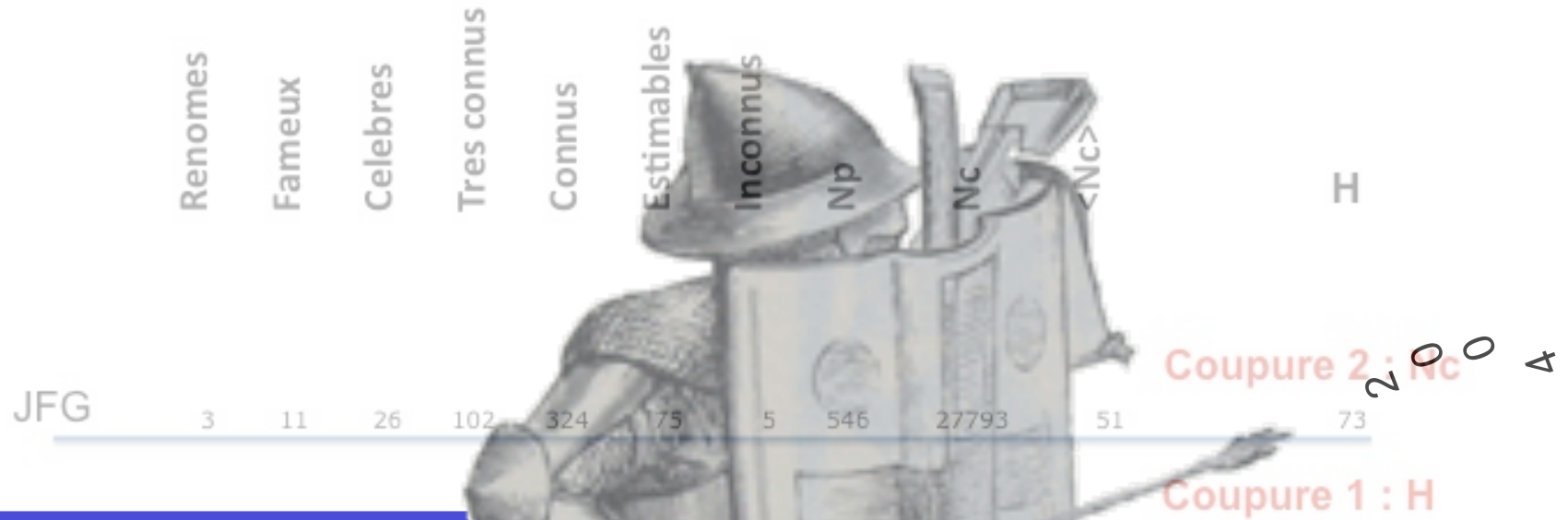
Statistíkeríes





La SuperSymétrie a été découverte il y a 24 ans ...





~~Wide) démonstration formelle de la validité de h_0~~

Hypothèse h_0 : JFG est le meilleur

Analyse statistique : JFG+Orateurs+4LAL-DreamTeam

