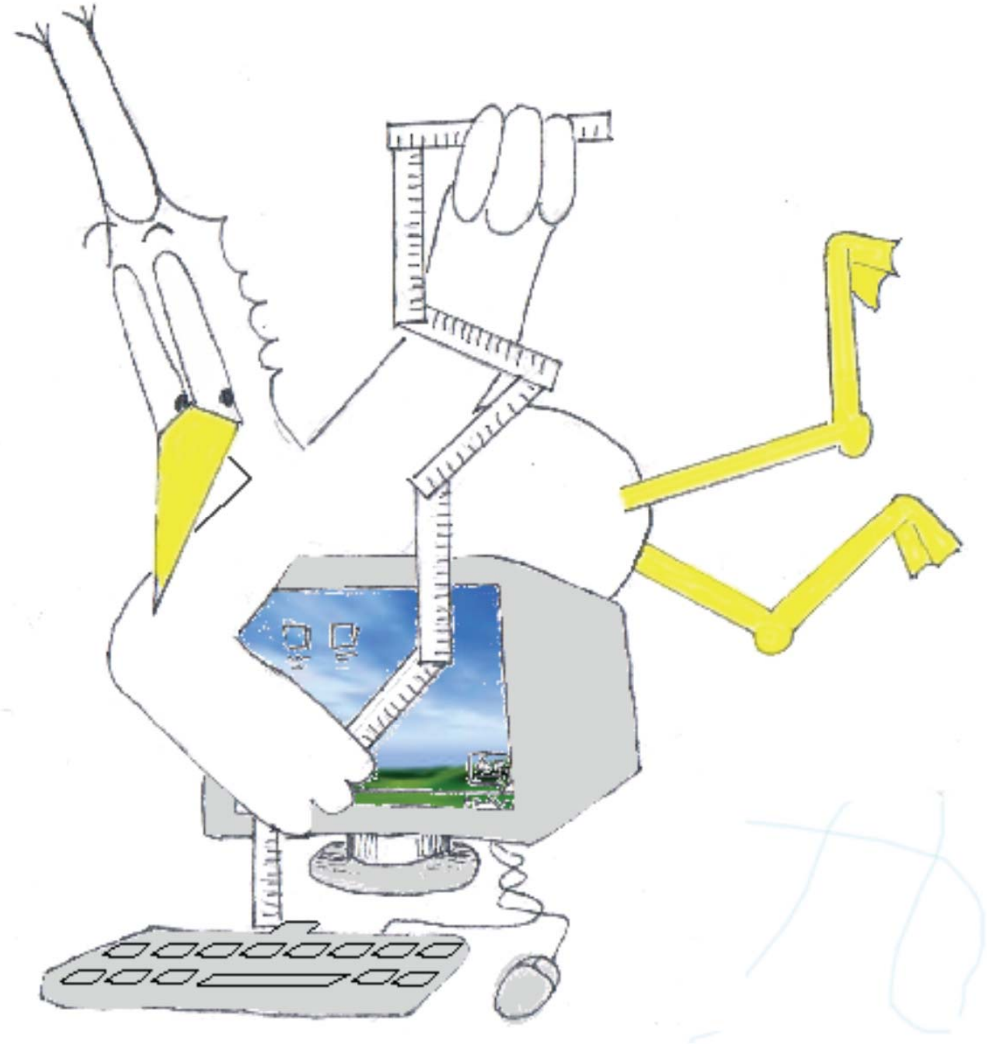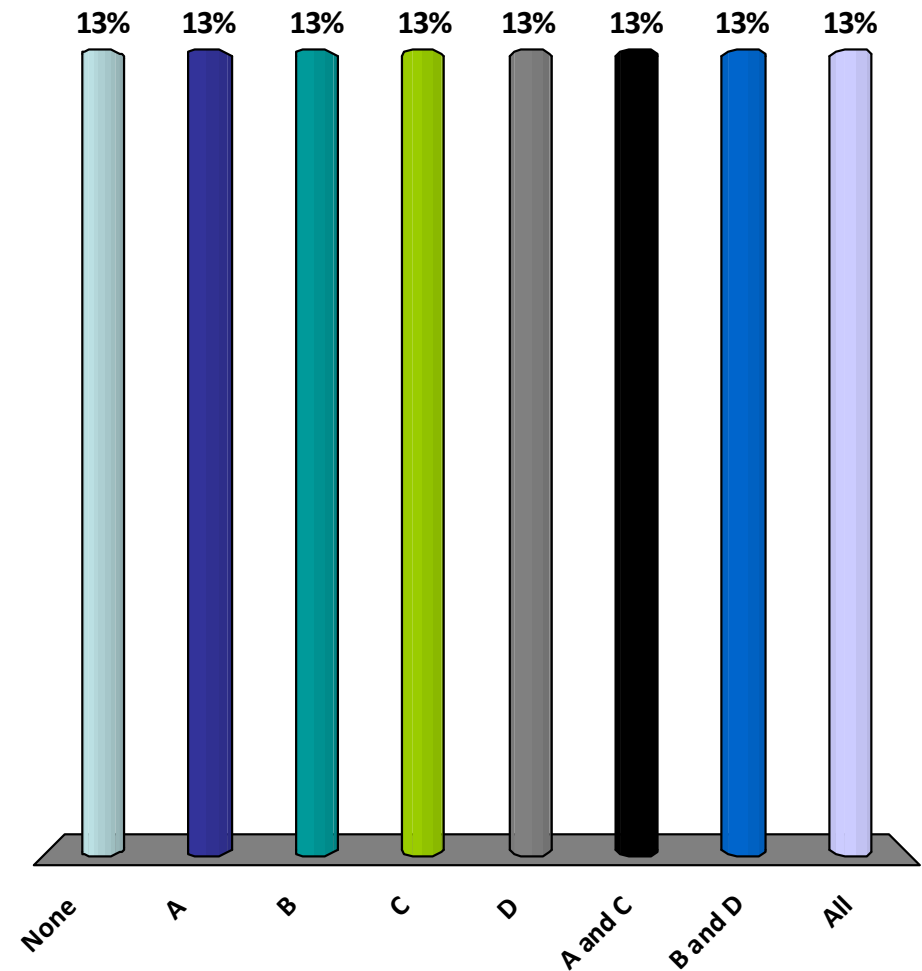# Bonus 1

Jean-Yves Le Boudec
2015

A non-dominated metric means...

A. a metric vector for which no other vector is better

B. a metric value that is better than or equal to all others

C. a metric value that is better than all others

D. None of the above

E. I don't know

We measure the performance of a radio link as a function of the modulation rate. Day/night is a nuisance factor. Which experimental plan is a proper randomization of the day/night factor ?

A. A
B. B
C. Both
D. None
E. I don't know

A Nb of experiments	day	night
1 Mb/s	20	10
11 Mb/s	30	15
55 Mb/s	60	30

| B Nb of experiments	day	night
1 Mb/s	20	20
11 Mb/s	20	20
55 Mb/s	20	20

20%   20%   20%   20%   20%
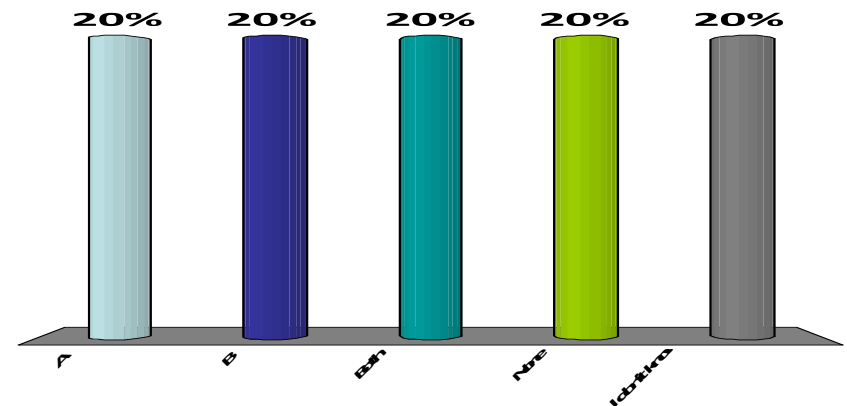
The «scientific method» means

1. Carefully screen all experimental conditions
2. Beware of hidden factors
3. Do not draw a conclusion until you have exhausted all attempts to invalidate it
4. I do not know

0%	0%	0%	0%
1	2	3	4
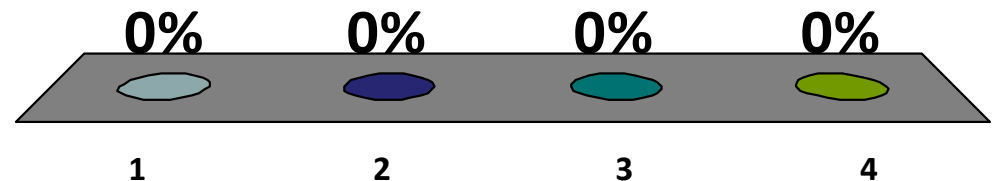
A nuisance factor is

1. An unanticipated experimental condition that corrupts the results

2. A condition in the system that affects the performance but that we are not interested in

3. An unpleasant part of the performance evaluation
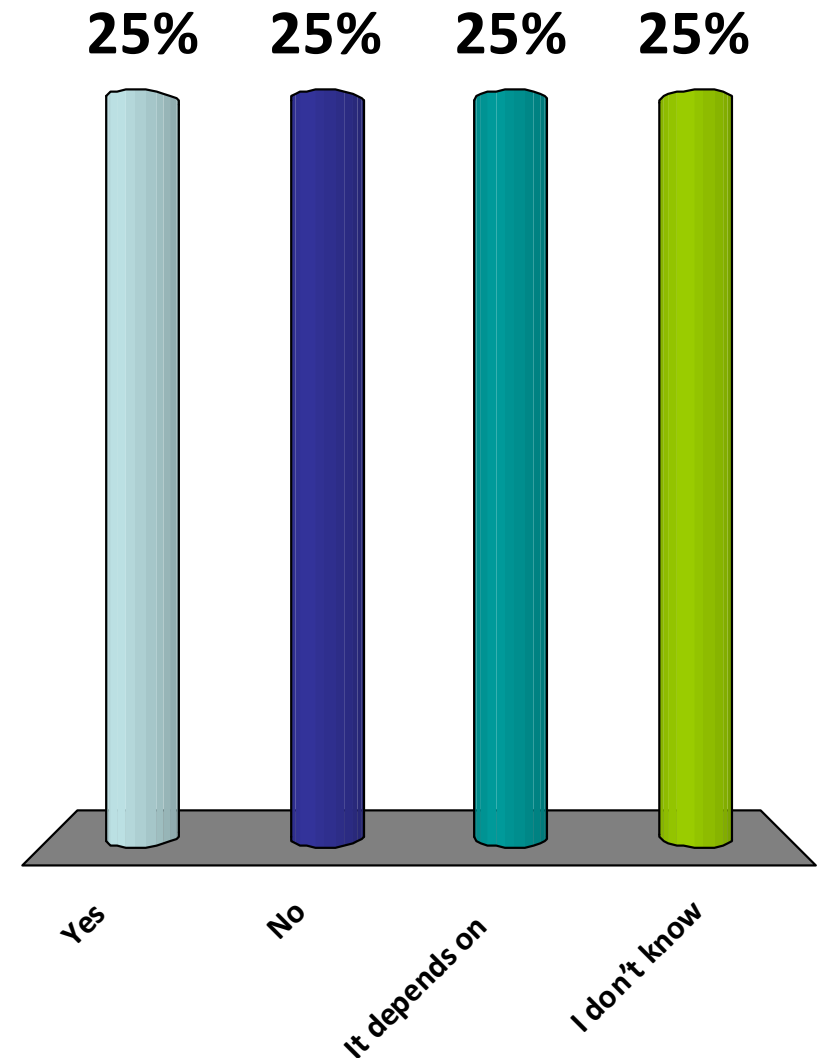
4. I do not know
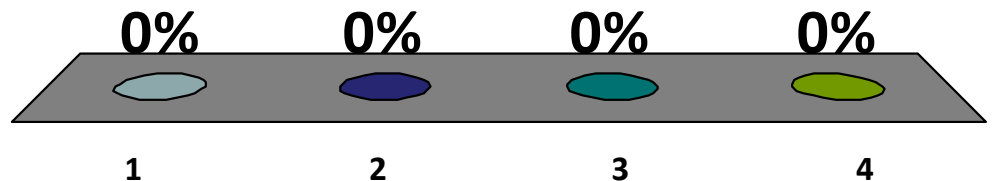
0% 0% 0% 0%

1   2   3   4

A lazy performance analyst obtains a sequence of results as follows.

- X_1 is a sample of $Poisson(\lambda)$
- to obtain X_n : flip a coin; if TAIL X_n is a sample of $Poisson(\lambda)$ else $X_n = X_{n-1}$

Is the sequence X_n independent ?

A. Yes

B. No

C. It depends on λ

D. I don't know

25%　25%　25%　25%

Yes　No　It depends on　I don't know

A lazy performance analyst obtains a sequence of results as follows.
- X_1 **is a sample of** $Poisson(\lambda)$
- **to obtain** X_n **: flip a coin; if TAIL** X_n **is a sample of** $Poisson(\lambda)$ **else** $X_n = X_{n-1}$

Is the sequence X_n **identically distributed ?**

A. Yes

B. No

C. It depends on λ

D. I don't know

25% 25% 25% 25%

Yes   No   It depends on   I don't know

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