

Homework for Sem 3

Read:

* *Okasha Ch 2 p 33- and Ch 3*

* *Knight and N. G. Leveson, John C. (1986). An Experimental Evaluation of the Assumption of Independence in Multiversion Programming.*

Then answer the following questions. Write down your answers and bring a paper copy to hand in. As always, be prepared to discuss and defend your answer.

- (1) What is the purpose of n -version programming
- (2) What premise do the authors assume n -version programming is based on?
- (3) If the HD method is to be used, what should H be?
- (4) And what deduction D is used in this experiment?
- (5) Can you find a better term for the “hypothesis” of this paper?
- (6) Does the experiment have any obvious weaknesses?
- (7) What do the calculated significance and confidence interval mean?
- (8) What is the exact conclusion that the authors draw from the experiment?

The paper is a classic but was harshly criticized by advocates of multiversion programming. A more constructive approach would have been to try to improve the multiversion method. Suggest an improvement!