

2017-2018

Cycle Ingénieur – 2<sup>ème</sup> année Département Informatique

#### Verification and Validation

**Overall Motivation** 

Université Paris-Sud / Orsay Département Informatique **Burkhart Wolff** 



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# Why is it important to get software right?

- Since information technology becomes more and more pervasive, the risks become more important
- Reliability, Safety and Security becomes more critical :
- transport systems (Cars, Métros, TGV), aviation controls, aerospace, ...
- critical industriel processes, nuclear power plants, weapons, ...
- medical technologies: tele-surgery, radiation control...
- critical telecommunication infrastuctures and networks
- electronic commerce

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#### Why is so difficult to get software right?



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In this course, we study the techniques that make sure that a component does, what it was planned to do.	sortware engineering process is complicated, but making all this work together is - well, challenging.	Why is so difficult to get software right?	planned to do.	In this course, we study the techniques that make sure that	well, challenging.	each of these phases in the software engineering process is complicated, but making all this work together is -	Why is so difficult to get software right?
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