Tracking Down A Reticle Killer

A seminar by
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Introduction

- Before we could develop our proprietary solutions for reticle ESD protection we first had to fully understand how reticle ESD happens.
- A study of the damage that occurs in reticles revealed that some of the damage mechanisms could not be properly explained.
- To improve our understanding of how this reticle damage is caused it was necessary to go back to basics and work through the problem from a new perspective.
- The latest data available on reticle ESD damage has been reviewed, analysed and interpreted within this study.
- A comprehensive theory explaining all the field induced damage mechanisms in reticles has been developed for the first time.
- This shows that the risks are not adequately addressed in current reticle handling practice – a paradigm shift in reticle protection is required (hence our new development).
The presentation is in three parts:

- **Electrostatics simulations**
  - showing how and why reticles are damaged by electric fields.

- **Study of damage in reticles**
  - showing what happens physically when electric fields interact with reticle structures.

- **Quantification**
  - an assessment of the level of risk now and in future reticle generations.
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