

# 3D-RID

The application of micro-  
machining to radiation imaging  
detectors



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## 3D-RID -- a detector development project funded by the European Commission

Partners: Applied Scintillation Technologies (UK)  
Czech Technical University (CZ)  
Metorex Oy (FI)  
Mid Sweden University (SE)  
Royal Institute of Technology (SE)  
Surface Technology Systems (UK)  
University of Freiburg (DE)  
University of Glasgow (UK)

# Outline of talk:

Motivation for 3d -- what is it?

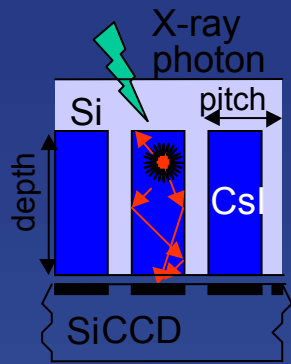
Simulation

Processing -- micromachining

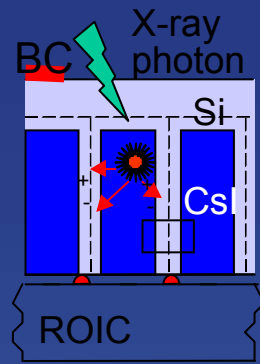
Devices

Conclusion

### 3D type detectors

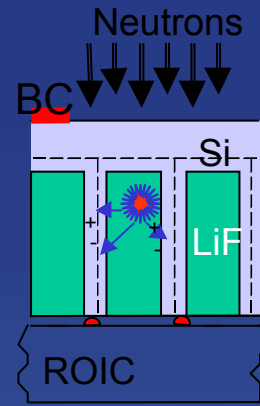
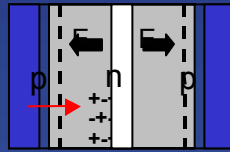


1. Scintillator light guiding to CCD

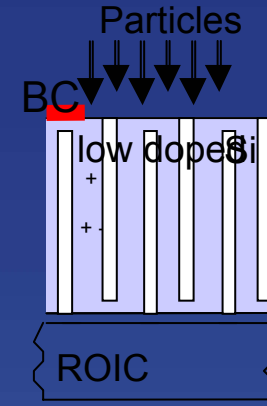


2. Scintillator pn-junction detection

Legend:  
BC = Back contact  
ROIC = Read out circuit



3. Neutron absorber pn-junction detection



4. Direct pn-junction detection