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# FPGA Working Group TWEPP 2016

## Welcome & Introduction

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TWEPP has hosted various successful working groups  
(power, opto, XTCA, microelectronics)

Idea from TWEPP committee:  
WG on using FPGAs in radiation environments

NB:

A working group is for short, informal  
presentations and interactive discussion

# Motivation for WG

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FPGAs used today in radiation environments of  
accelerator & experiment systems  
(SRAM, flash & antifuse FPGAs)

Wider use planned in future:  
Control systems in LHC + DAQ/controls in experiment  
upgrades

Common issues to overcome:

- Understanding generic radiation tolerance

- Mitigation of effects

- Ways of testing/verifying

- Industrial contacts ..... etc etc

# Scope of WG.....

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- Are you interested in an FPGA working group every year at TWEPP?
- Should the WG include topics on FPGAs in radiation?
- Should the WG include topics on conventional use of FPGAs outside radiation? (this is a huge field.....)
- What specific topics should be discussed?  
eg power management, tools, high-speed.....
- How do we communicate?  
expand & update an existing mailing list

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This 1<sup>st</sup> WG is a kick-off aperitif, with a few randomly selected talks on recent results & a tutorial on the widely-used GBT-FPGA project

We need feedback & participation from YOU for future WGs