

JORNADAS LIP 2020

16th february



**STRATOSPOLCA**



# **STRATOS**pheric **POL**arimetry with **C**admium Telluride **A**rray

# HOW DID IT START?



Coimbra's Academic Association  
Astronomy Section



REXUS/BEXUS  
Student Experiment Programme

# The REXUS/BEXUS Programme



BEXUS

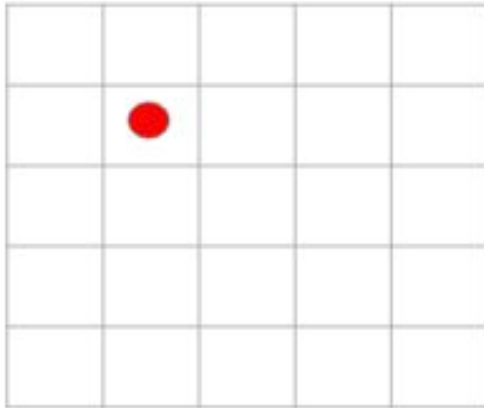


REXUS

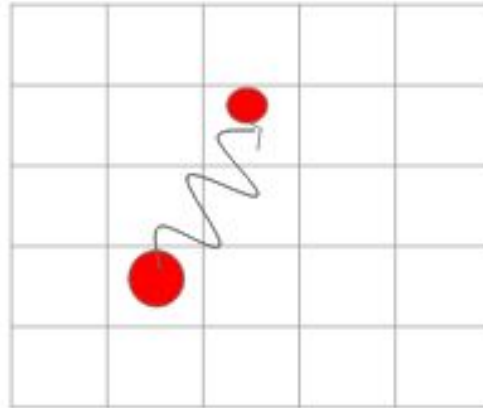
# WHAT WAS THE PROPOSAL?

Measure gamma-ray background noise-level as a function of altitude and the multiplicity of the events

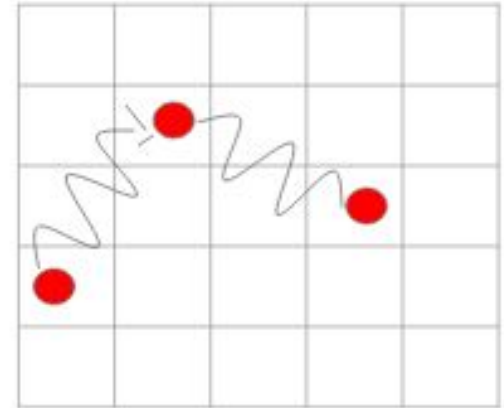
Single Event

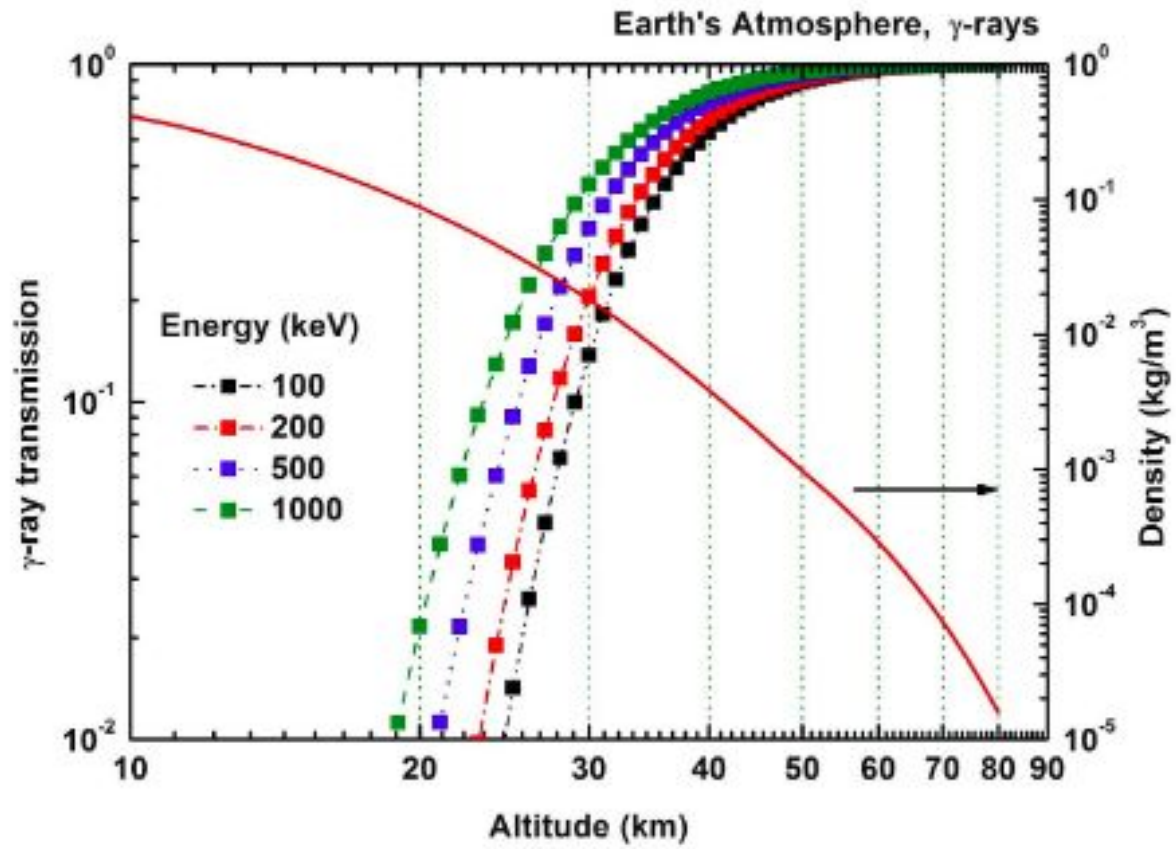


Double Event

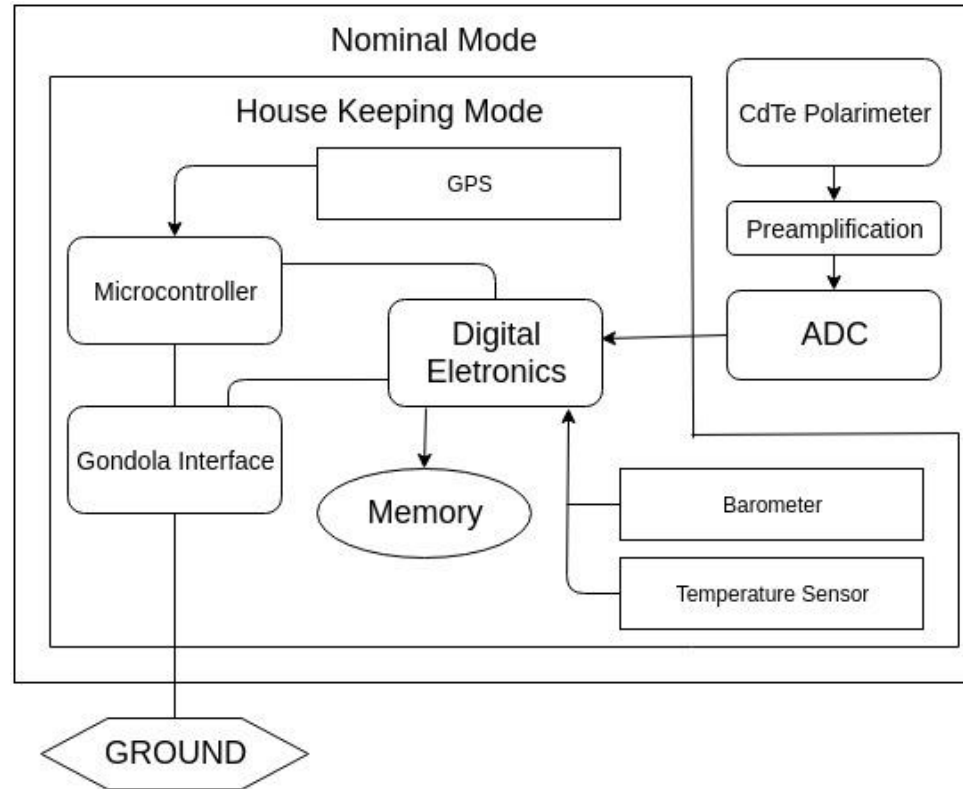


Multiple Event



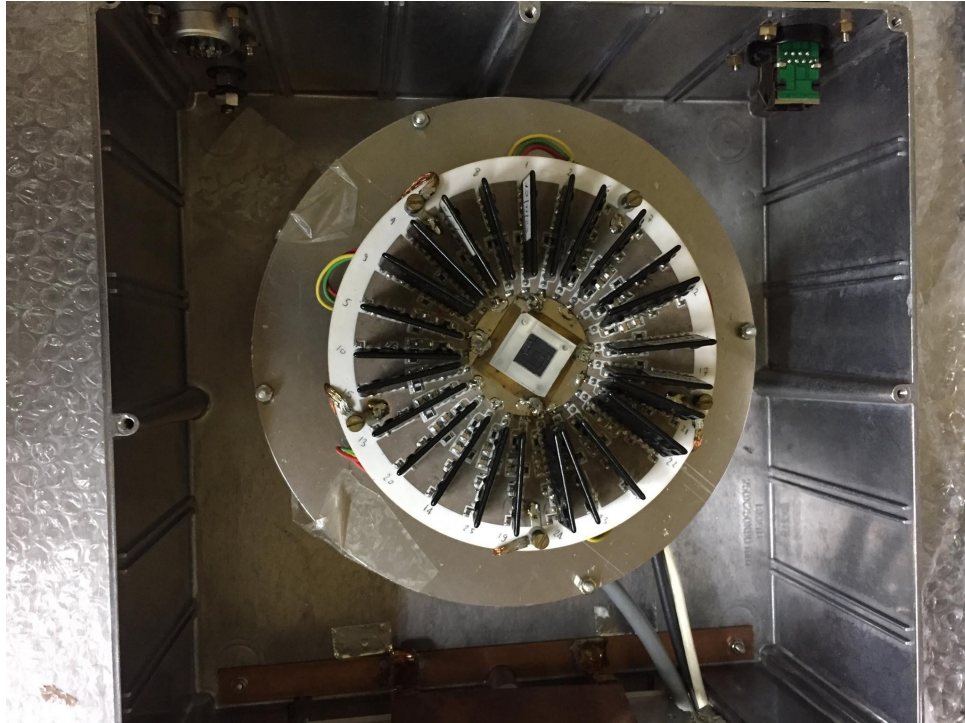


# EXPERIMENT CONCEPT





# THE DETECTOR



<p style="text-align: center;"><b>HASP - SSGX</b></p>	<p style="text-align: center;"><b>STRATOSPOLCA</b></p>
<p style="text-align: center;">Measure the rate of single, double and multiple events for polarimetry in high-energy astrophysics.</p>	<p style="text-align: center;">Measure gamma-ray background noise-level <b>as a function of altitude</b> and the multiplicity of the events</p>
<p style="text-align: center;">2x4 pixels 1.6 cm<sup>2</sup> area 10 mm tickness</p>	<p style="text-align: center;"><b>5x5</b> pixels <b>20 cm<sup>2</sup></b> area <b>10 mm</b> tickness</p>



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# **WHAT COMES NEXT?**

**THANK YOU!**