



ASTROVIBE workshop welcome and goals

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- This workshop started with the idea that AGN and LIV community would benefit to work in closer collaboration
 - LIV consists to check carefully the presence of energy dependent time lag in various sources
 - Most of those sources for IACTs are AGNs, thanks to their fast variability detected for some flares
- LIV communities started with individual sources and are going to population studies
- This leads to the creation of a consortium between major IACTs observatory allowing to share the data in this framework (H.E.S.S., MAGIC, VERITAS and LST1)
- But the question of intrinsic lags remains an important noise to those studies
- In the other side, AGN-LIV communities in pioneering works started to look at the possibility of energy dependent time lag due to the source acceleration-cooling processes...
 - ... and found that such behavior are expected and possible to be detected (cf Cédric Perennes, Christelle Levy)
 - This is a puzzling situation given that almost no energy dependent time lag has been detected so far
- So far, not much similar studies on the GRB side (as far I know), but given the few GRBs detections and the effort currently made in IACTs to detect them, we should be ready on this side as well

- LIV communities effort leads to the production of a code made for source population studies
- In the other side, code for modelisation of flare exists and can be used to assess intrinsic time lag energy variability
- Using LIV codes to confronts to data AGN/GRB modelisation, with the possibility to go to source population study (for free)
- Using AGN/GRB modelisation to assess realistic time lag parametrization to be used for LIV studies
- Prepare for the unprecedented precision of the next generation (CTAO) because energy dependent time lag will be likely detected

- Goal of the workshop is to exchange idea in a little audience, in order to go to a grant application to have some concrete results in the future

09:00	Welcome and outline of the workshop LPNHE	<i>Dr Sami Caroff</i> 09:00 - 09:20
	ANR Project Presentation LPNHE	<i>Julien Bolmont</i> 09:20 - 09:40
10:00		
	Coffee break LPNHE	10:30 - 11:00
11:00	LIVelihood : A software for IACT LIV study LPNHE	<i>Dr Sami Caroff</i> 11:00 - 11:20
	LIV search in IACT data LPNHE	<i>Cyann Plard et al.</i> 11:20 - 11:40
	non-parametric Template LIV analysis LPNHE	<i>Daniel Kerszberg</i> 11:40 - 12:00
12:00		
	lunch	
13:00		

13:00	lunch	
	LPNHE	12:30 - 14:00
14:00	Disentangling LIV from source intrinsic effect ?	<i>Dr Sami Caroff</i>
	LPNHE	14:00 - 14:20
15:00	Coffee break	
	LPNHE	15:30 - 16:00
16:00	Disentangling LIV from source intrinsic effect with AGN modelling	<i>HELENE SOL</i>
	LPNHE	16:00 - 16:20
	AGN Variability models (CTAO Data Challenge)	<i>Jean-Philippe Lenain</i>
	LPNHE	16:20 - 16:40

09:00	KSP AGN (to be confirmed) <i>LPNHE</i>	<i>Jean-Philippe Lenain</i> 09:00 - 09:20
	AGN Variability with CTAO simulated data <i>LPNHE</i>	<i>Guillaume Grolleron</i> 09:20 - 09:40
	disentangling intrinsic effects from LIV in CTAO simulation data <i>LPNHE</i>	<i>Alberto Rosales De Leon</i> 09:40 - 10:00
10:00		
	Coffee break <i>LPNHE</i>	10:30 - 11:00
11:00	Gamma ray Burst modelisation and perspective in the SVOM era <i>LPNHE</i>	<i>Prof. Frédéric DAIGNE</i> 11:00 - 11:20
12:00		
	lunch	
13:00		

	LPNHE	12:30 - 14:00
14:00	Building the synergies between the AGN-GRB-LIV communities <i>Prof. Frédéric DAIGNE, HELENE SOL, Julien Bolmont, Dr Sami Caroff</i>	
15:00	LPNHE	14:00 - 15:30
	Coffee break	
	LPNHE	15:30 - 16:00
16:00	ANR brainstorming and next steps <i>Julien Bolmont, Dr Sami Caroff</i>	
17:00	LPNHE	16:00 - 17:30