

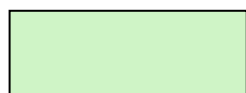
# **Pulsars in the DC1 and Vela in particular**

**Marion Spir-Jacob**

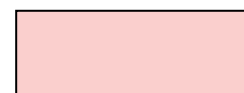
# 12 pulsars in the DC1

Number of observations in the DC1 for the 12 pulsars

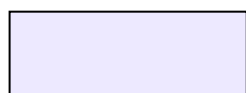
	Offset max 1°	Offset max 2°	Offset max 3°	Offset max 4°	Offset max 5°
Crab	0	0	0	0	14
Vela	0	9	18	27	45
Geminga	0	0	0	14	14
PSR J0007+7303	0	0	0	0	0
PSR J0614-3329	0	0	0	0	0
PSR J1028-5819	9	9	27	45	63
PSR J1048-5832	0	18	27	45	54
PSR J1413-6205	19	19	76	95	114
PSR J1836+5925	0	0	0	0	0
PSR J2021+3651	0	30	45	75	105
PSR J2229+6114	0	15	15	45	75
PSR J1809-2332	0	38	38	57	133



I tried and there is a pulse



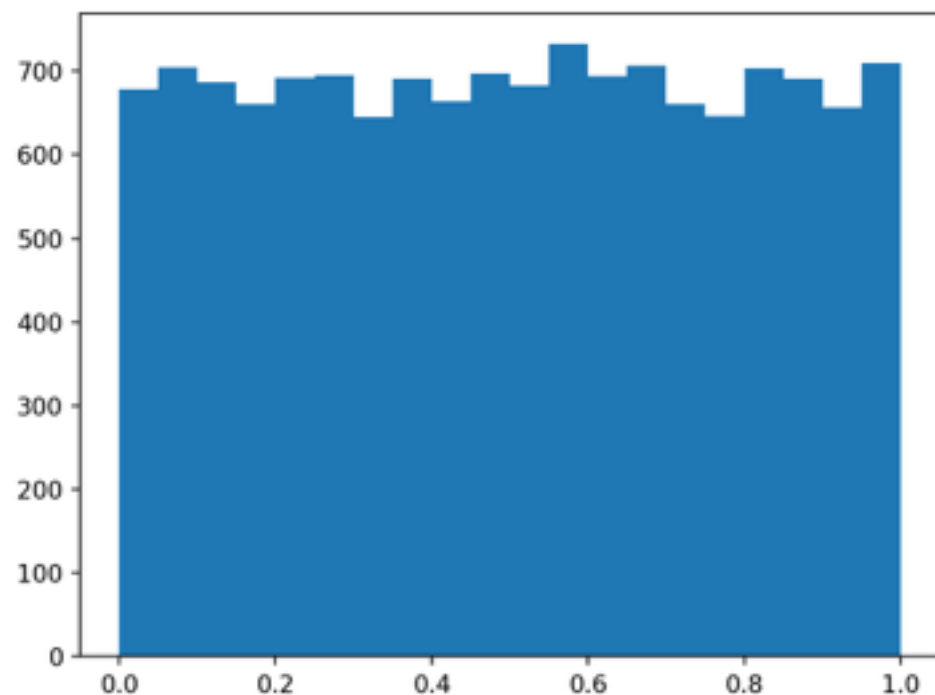
Yes observation but no pulse



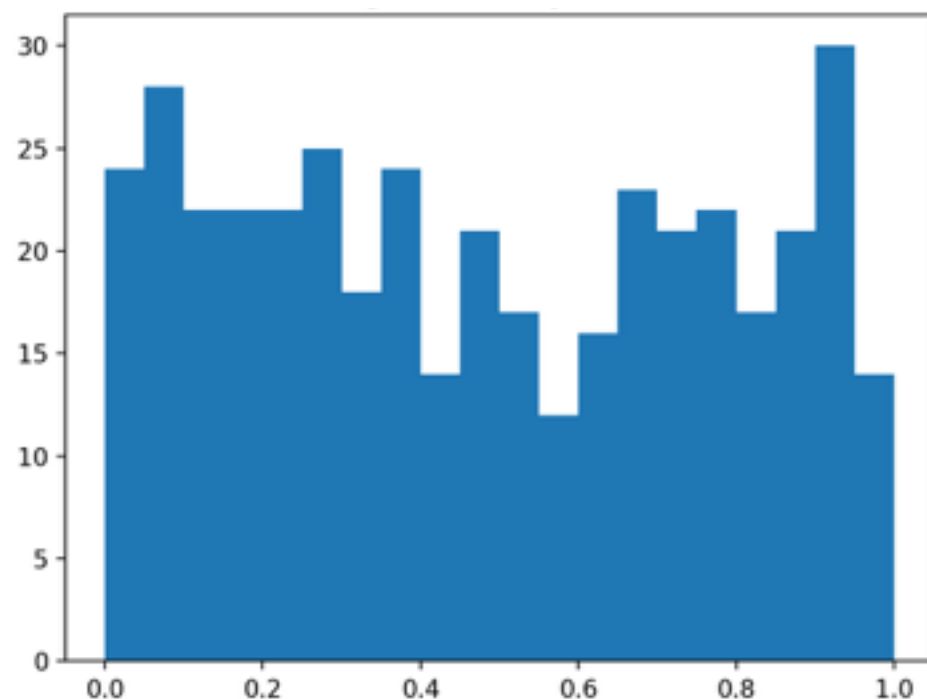
No observation there ?

# Phasogram of PSR J1413-6205

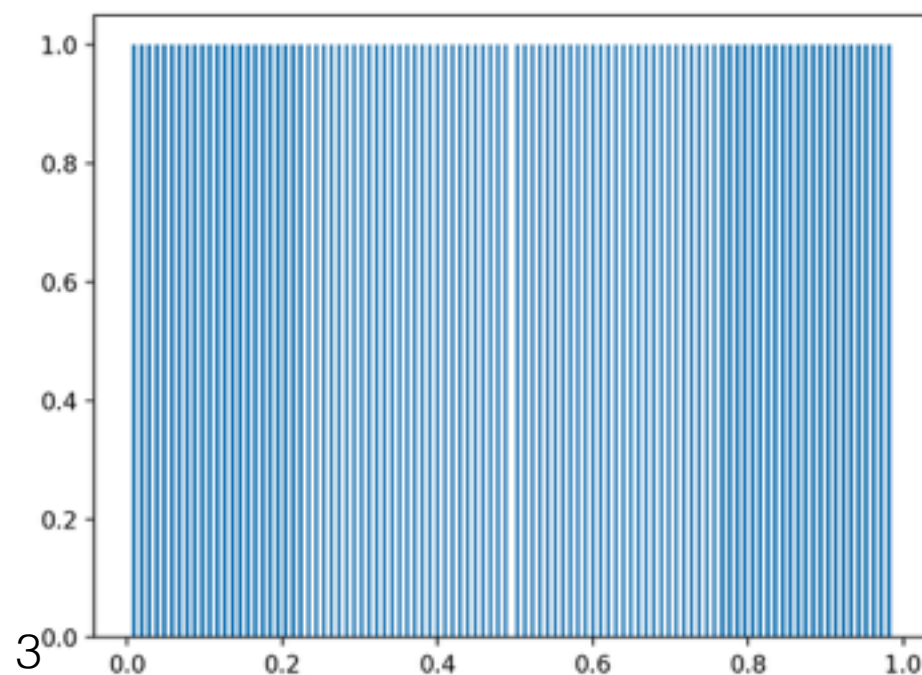
All 19 observations,  
all events  $< 0.2$  deg



All 19 observations,  
all gammas  $< 0.2$  deg



Histogram made out of the  
'PHASE' column from the PSR  
J1413-6205 phase curve fits file



## 12 pulsars in the DC1

- ▶ There are supposed to be 12 pulsars in the DC1
- ▶ Their parameters (name, position, spectral law, phasing terms) are in `model_galactic_pulsars.xml`
- ▶ Yet when I look around the position, few pulsars actually have observations
- ▶ Among the ones that do, I can't reconstruct the pulse, except for Vela
- ▶ What is happening ?

# Vela phasogram from the DC1

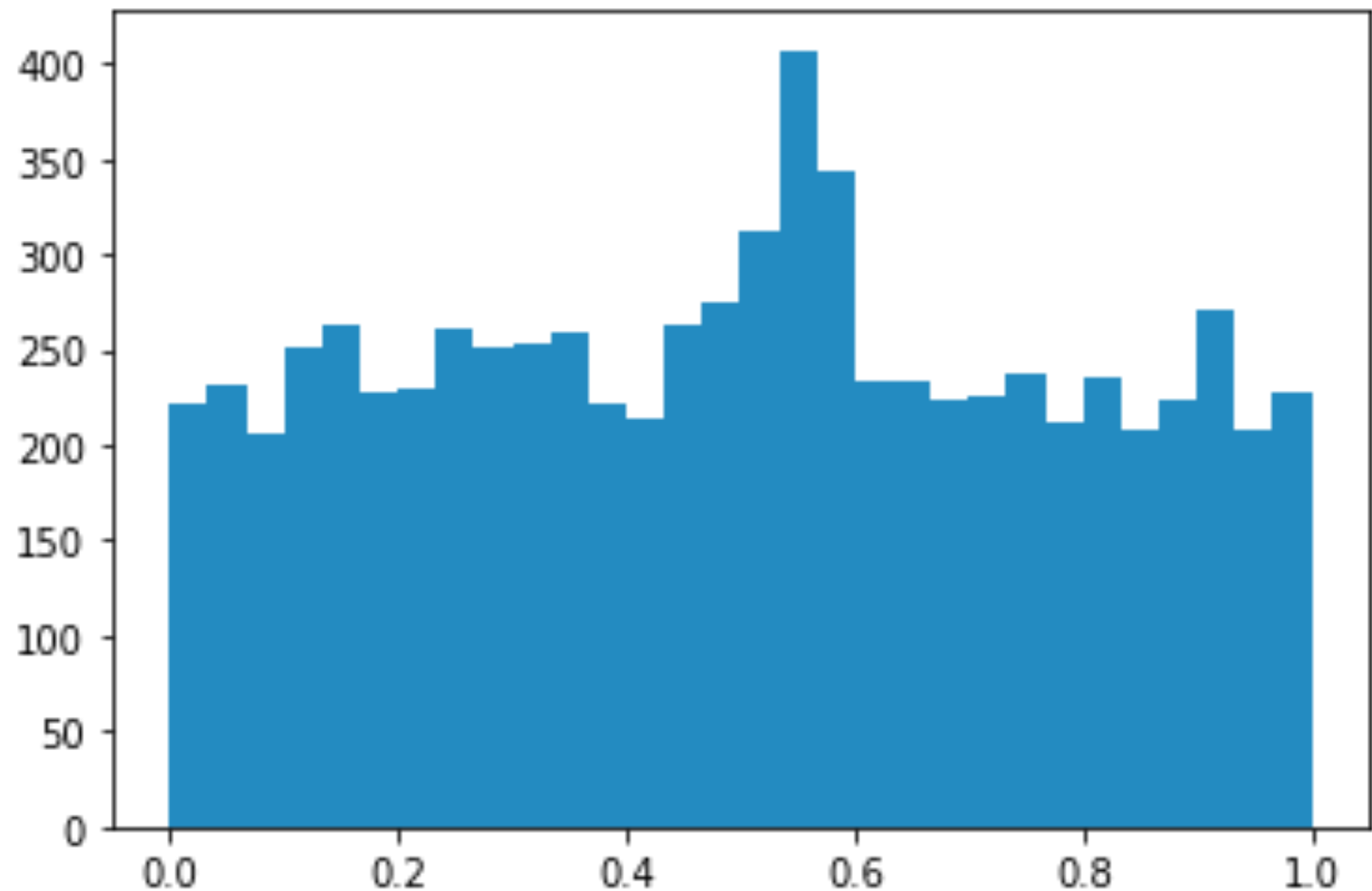
$C_m = 12.3 (= \sigma)$

Li&Ma (ON-phase =  
[0.5, 0.6], OFF-

phase = [0.7, 1] :

$\sigma = 11.6$ , excess =  
386

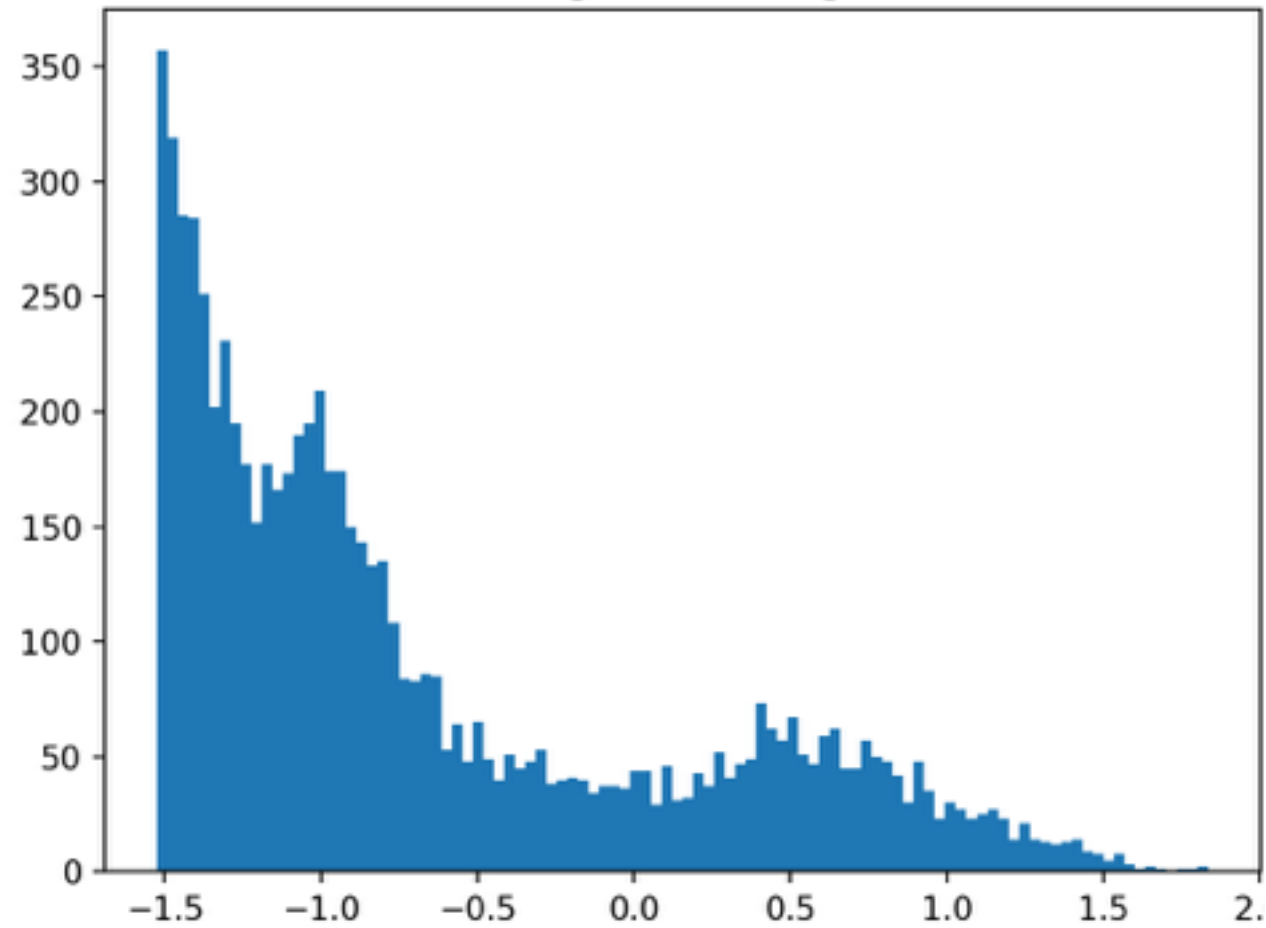
H-value (not  
significance!) : 229,  
harmonic 20



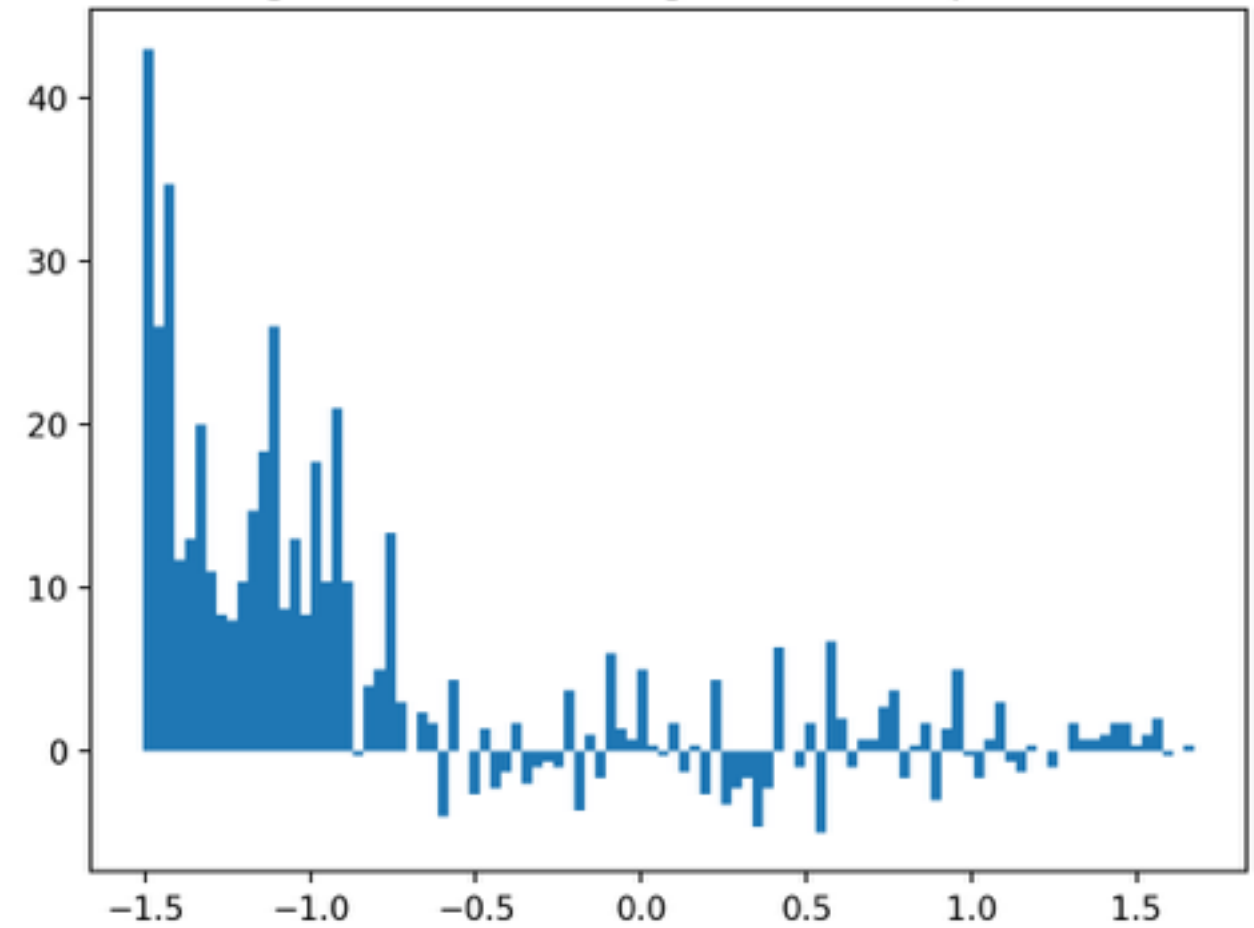
All energies, all observations with an  
offset < 2 deg, angular cut of 0.2 deg

# Vela energies in the DC1

Histogram of energies



Histogram of excess energies in the ON-phase zone



**Thank you !**