From Noldus File to Visualisation part 5 : Phase Analysis with Biodare

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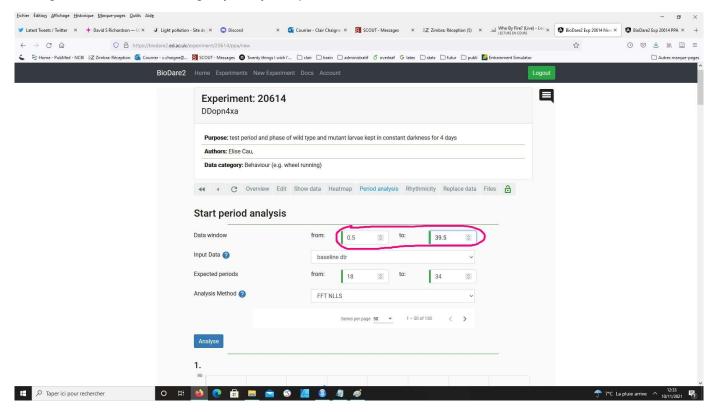
1. INSTRUCTIONS

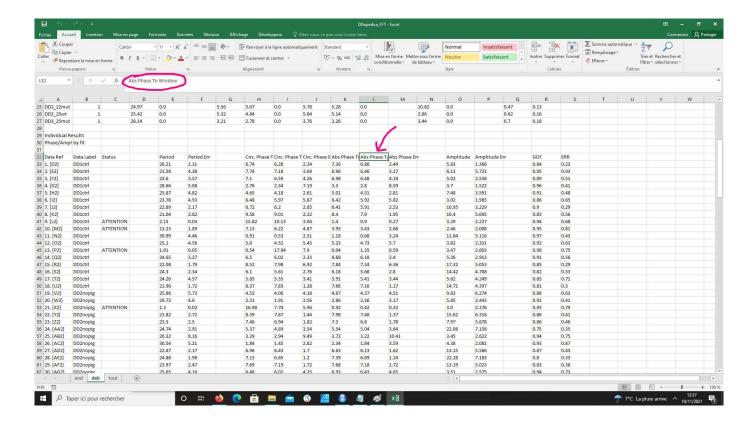This is a follow up from `From Noldus File to Visualisation part 4 : wakefish`

For this example I used the `DDopn4xa` experiments. It includes 3 independent experiments : PSDD1opn4xa, PSDD2opn4xa and PSDD3opn4xa, that I trimed so they all start at 23:30:00).

2. STEP BY STEP EXAMPLE

1-9. See steps 1 to 9 from part 4

10. Phases analysis : for phases calculation, I use the default Expected periods, for `Input Data` I select `baseline dtr` and for `Analysis Method` I use the `FFT-NLLS`. For calculating the phase before the pulse, I use the `Data window` from `0.5 to 39.5` (corresponding to 9am/CT0 to midnight/CT15 of the following day in my data), and for the phase after the pulse the window is from `48.5 to 87.5` (corresponding to 9am/CT0 to midnight/CT15 of the following day in my data).

11-13. See septs 11 to 13 from part 4

14. Keep the Abs Phase to Window data

15. Labelling unwanted data After putting my data in the shape I want (colors, borders, putting before and after phases on the same sheet), I label in red the unwanted data : larvae with a period of more than 30 or less than 18, larvae with a phase of more than 24 or less than 3.

16. Delta phase calculation After ordering my data by genotype, I calculate the delta phase for each genotype : **(1)** in the correct cell, put the = sign to start a formula, **(2)** click on the cell corresponding to the after phase, **(3)** put a - in your formula and click on the cell corresponding to your before phase to do at the end =phaseafterthepulse-phasebeforethepulse

17. Remove unwanted data : to remove delta phase calculated from unwanted phases, if you have labelled your unwanted phases in red, you can **(1)** select and copy your before column and **(2)** paste it with the `Mise en forme` option label in red the delta phase to remove. do the same with the after column and for all the genotypes and voila !

Data Label	Status		Period	Period Err	Abs Phase T(	Abs Phase Err			DDopn4xa_wt_deb_FFT	DDopn4xa_mut_deb_FFT	DDopn4xa_wt_end_FFT	DDopn4xa_mut_end_FFT	DDopn4xa_wt_deb_FFT
DD1ctrl			32.07	15.17	6.34	40.18			6,86	4,08	6,34	7,21	6,86
DD1ctrl	ATTENTION		0.91	0.01	0.24	0.58			6,46	3,25	0,24	0,33	6,46
DD1ctrl			27.92	6.3	7.05	15.38			6,48	1,44	7,05	3,15	6,48
DD1ctrl			22.42	4.36	11.49	14.98			2,8	4,91	11,49	7,01	2,8
DD1ctrl	ATTENTION		0.65	0.0	0.44	0.41			4,51	1,35	0,44	6,76	4,51
DD1ctrl			29.92	11.05	3.58	34.26			5,92	7,08	3,58	6,47	5,92
DD1ctrl			23.58	4.06	6.52	12.53			5,91	3,22	6,52	5,71	5,91
DD1ctrl	ATTENTION		2.64	0.08	2.53	2.0			7,9	5,48	2,53	2,6	7,9
DD1ctrl			24.99	3.5	6.45	9.09			0,9	4,52	6,45	6,61	0,9
DD1ctrl	ATTENTION		1.45	0.02	1.27	0.69			3,43	1,93	1,27	5,63	3,43
DD1ctrl	ATTENTION		1.06	0.01	0.39	0.64			0,68	3,24	0,39	2,12	0,68
DD1ctrl			24.78	3.33	7.69	8.34			4,73	5,68	7,69	6,3	4,73
DD1ctrl			28.34	7.06	1.19	19.46			1,35	4,08	1,19	8,59	1,35
DD1ctrl			24.75	3.69	7.05	9.55			6,18	6,11	7,05	1,64	6,18
DD1ctrl	ATTENTION		2.39	0.04	2.18	1.09			7,34	6,22	2,18	5,19	7,34
DD1ctrl			27.39	6.53	5.08	16.95			5,68	10,01	5,08	5,56	5,68
DD1ctrl	ATTENTION		2.58	0.04	0.57	1.06			5,41	5,23	0,57	6,04	5,41
DD1ctrl	ATTENTION		13.39	1.59	5.41	8.12			7,16	3,64	5,41	6,36	7,16
DD2onpig			29.07	10.17	7.05	119.4			4,37	3,85	7,05	1,8	4,37
DD2onpig			33.58	22.54	3.22	72.11			2,36	1,46	3,22	7,55	2,36
DD2onpig			26.04	8.48	4.22	22.79			0,42	5,54	4,22	0,09	0,42
DD2onpig	ATTENTION		0.37	0.0	0.15	0.42			7,48	5,34	0,15	0,45	7,48
DD2onpig	ATTENTION		1.42	0.03	0.77	1.64			6,8	5,19	0,77	9,03	6,8
DD2onpig	ATTENTION		0.85	0.01	0.42	0.97			5,04	5,64	0,42	6,35	5,04
DD2onpig			25.43	5.8	6.77	14.73			3,22	0,73	6,77	0,52	3,22
DD2onpig			27.11	8.6	5.76	21.89			1,84	2,16	5,76	7,77	1,84
DD2onpig			24.31	4.06	7.11	10.39			6,13	2,41	7,11	8,38	6,13
DD2onpig			25.47	3.99	6.53	10.2			6,89	7,12	6,53	3,78	6,89
DD2onpig			23.51	3.65	7.39	11.25			7,18	4,27	7,39	6,83	7,18
DD2onpig			23.0	2.72	8.17	8.24			6,43	5,66	8,17	1,88	6,43
DD2onpig			26.77	3.06	6.79	7.62			3,23	5,47	6,79	5,58	3,23
DD2onpig			30.06	11.11	2.37	36.62			5,55	6,76	2,37	5,29	5,55
DD2onpig			23.19	2.87	8.96	7.21			5,24	1,14	8,96	6,08	5,24
DD2onpig			24.04	4.51	8.54	11.24			6,89	6,82	8,54	4,13	6,89
DD2onpig			28.21	9.74	3.3	33.4			4,64	6,13	3,3	5,75	4,64
DD2onpig			24.36	6.16	5.82	76.03			6,36	6,77	5,82	0,3	6,36
DD2onpig			25.25	7.78	7.97	104.4			6,63	7,18	7,97	8,04	6,63

end   deb   **tout**

18. Statistics : see part 4