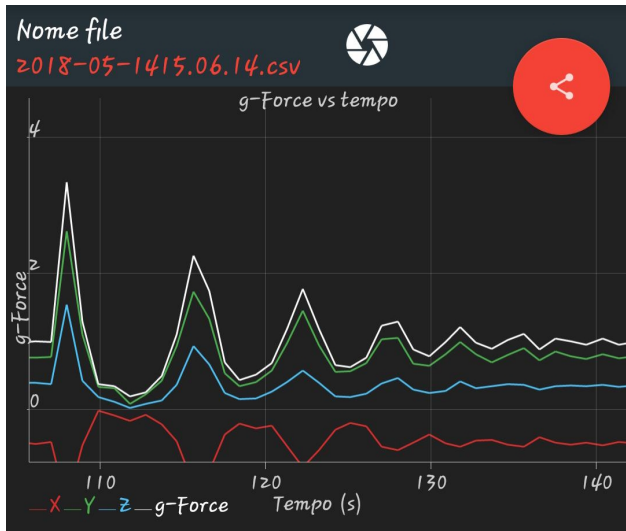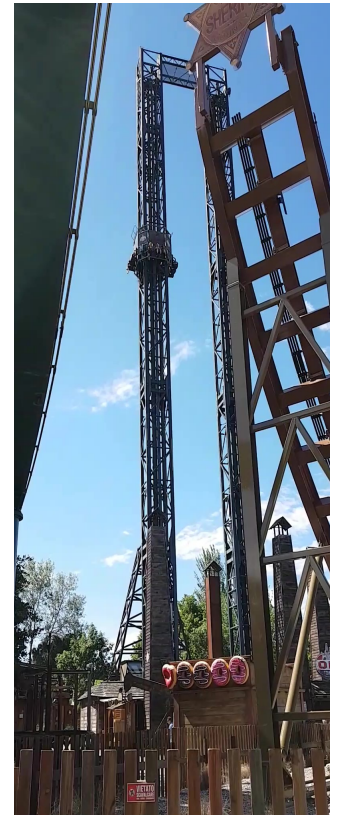# Oil Tower 1 – measurements at Mirabilandia

On 14th May we went to visit the theme park Mirabilandia in Ravenna, where we tried many rollercoasters and took measurements from our rides.

Acceleration analysis of all the ride:
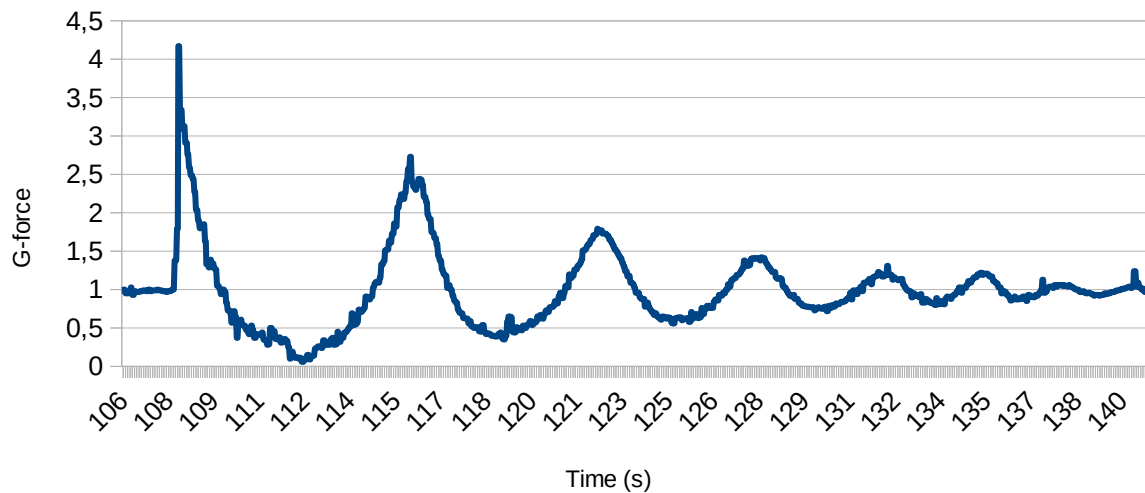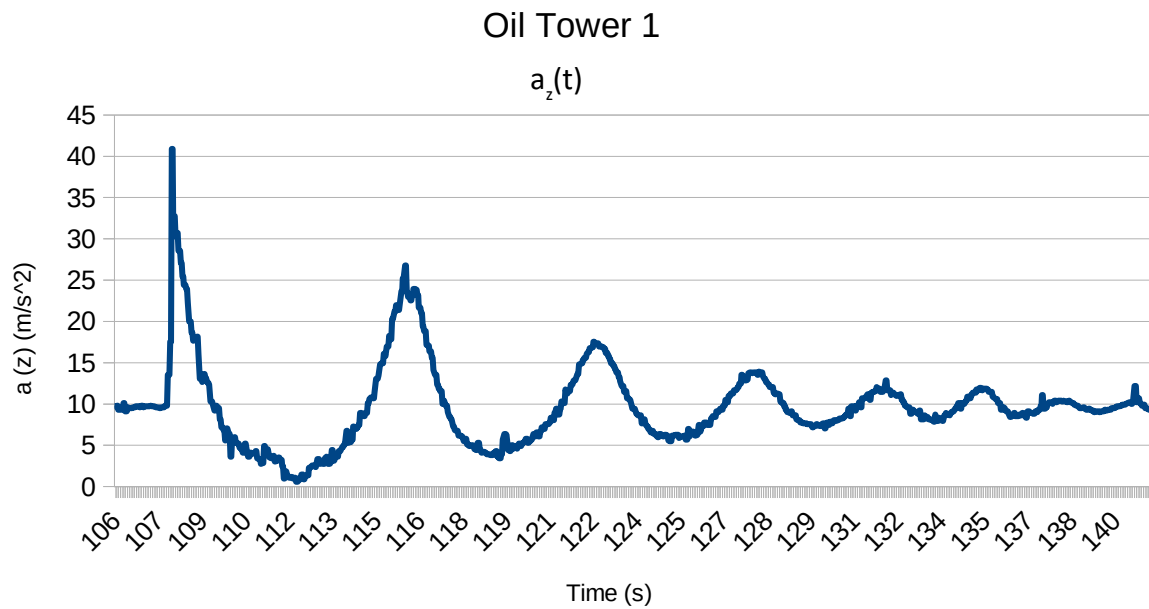

Analysis made by the app 'Physics Toolbox Rollercoaster'

Oil Tower 1

Graphics:

Oil Tower 1

G-force (t)

Oil Tower 1

$a_z(t)$

Analysis of the first part of the ride:

- First shot:

(A) is the starting point

(B) is the point where the lift has the maximum speed

(C) is the point where the lift has reached the top of the tower (maximum height).

- First fall:

(D) is the point where the lift starts to slow down.

(E) is the lowest point reached by the lift in the first fall.

Oil Tower 1

$a_z(t)$