**Interpolation with the 2nd order polynomial.**

The program itself can be found here

<http://herodes.feld.cvut.cz/mereni/grafy-new/grafy.php>

and it can be used for data processing from the **Free Fall Study** measurement.

It is all in Czech, so here is translation of basic functions.

Pocet prubehu: number of measured curves, mostly 1.

Prubeh c. 1: number of measured data (number of time-height pairs)

x1, x2, … values of time (use seconds instead of ms to avoid later recalculation)

y1, y2, … values of height (use meters to avoid later recalculation)

σy1, σy2, … uncertainties – fill in number 1 to all fields in the first instance

check fields – leave all unchecked unless you want to ignore the corresponding row

Legenda – legend, Typ bodu – type of points, velikost bodu – point size, barva – color

Prolozit – type of interpolation, use “**polynomem 2. stupne (parabolou)**”!!

Nadpis grafu – graph title, Popis osy X (Y) – X(Y) axis description

Xmin/max, Ymin/max – can be left blank

Mrizka – the grid, **check it!!**

Odeslat – submit

Now copy the value of the (*χ*2/ν)1/2 into the clipboard. Click „opravit“, you will get back to the previous form. Paste the value from the clipboard into σy1, σy2, …fields instead of ones. Submit again.

Now you have your results including correct uncertainties. You can download it like PDF or you can send it yourself by e-mail.