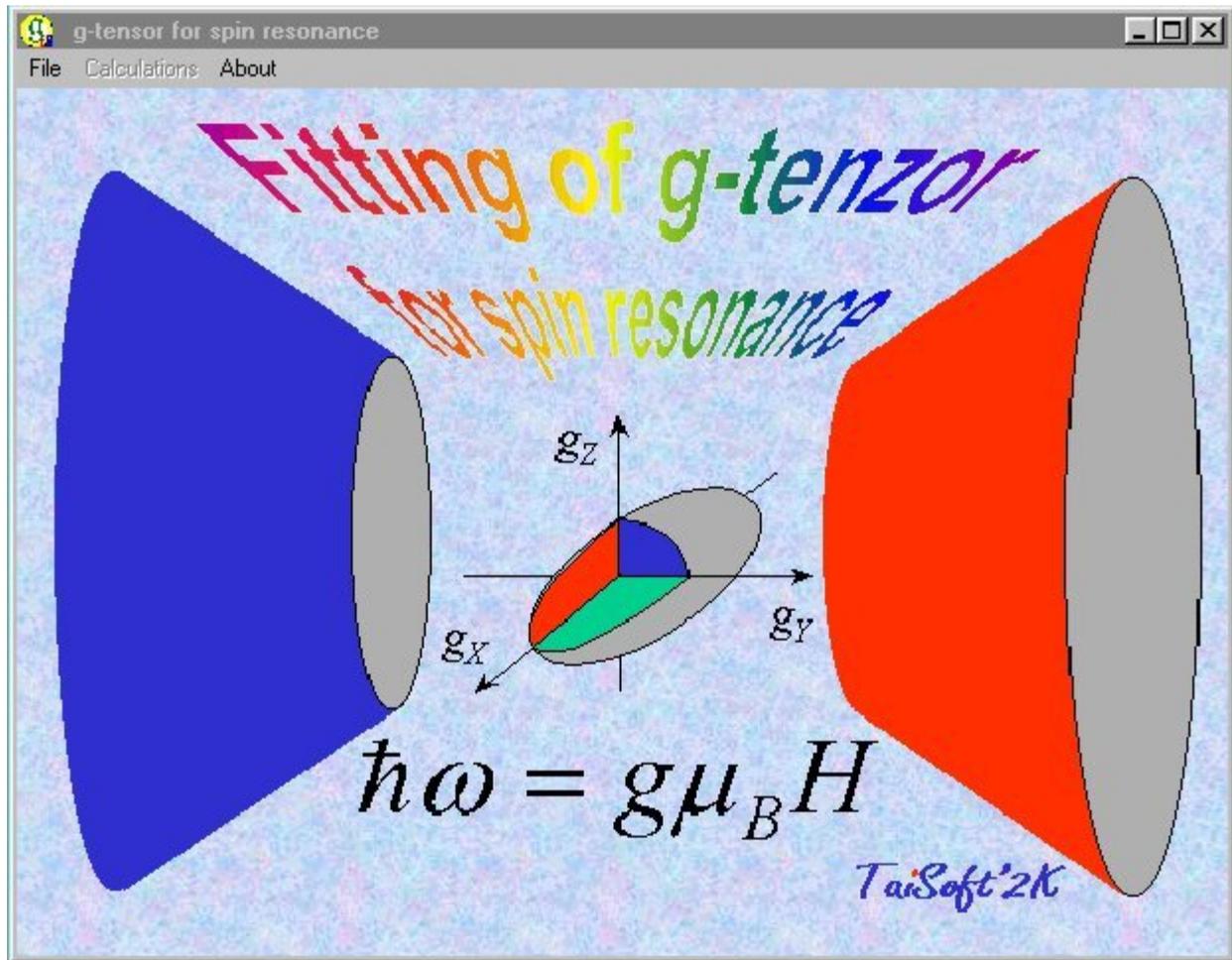


# GTensor



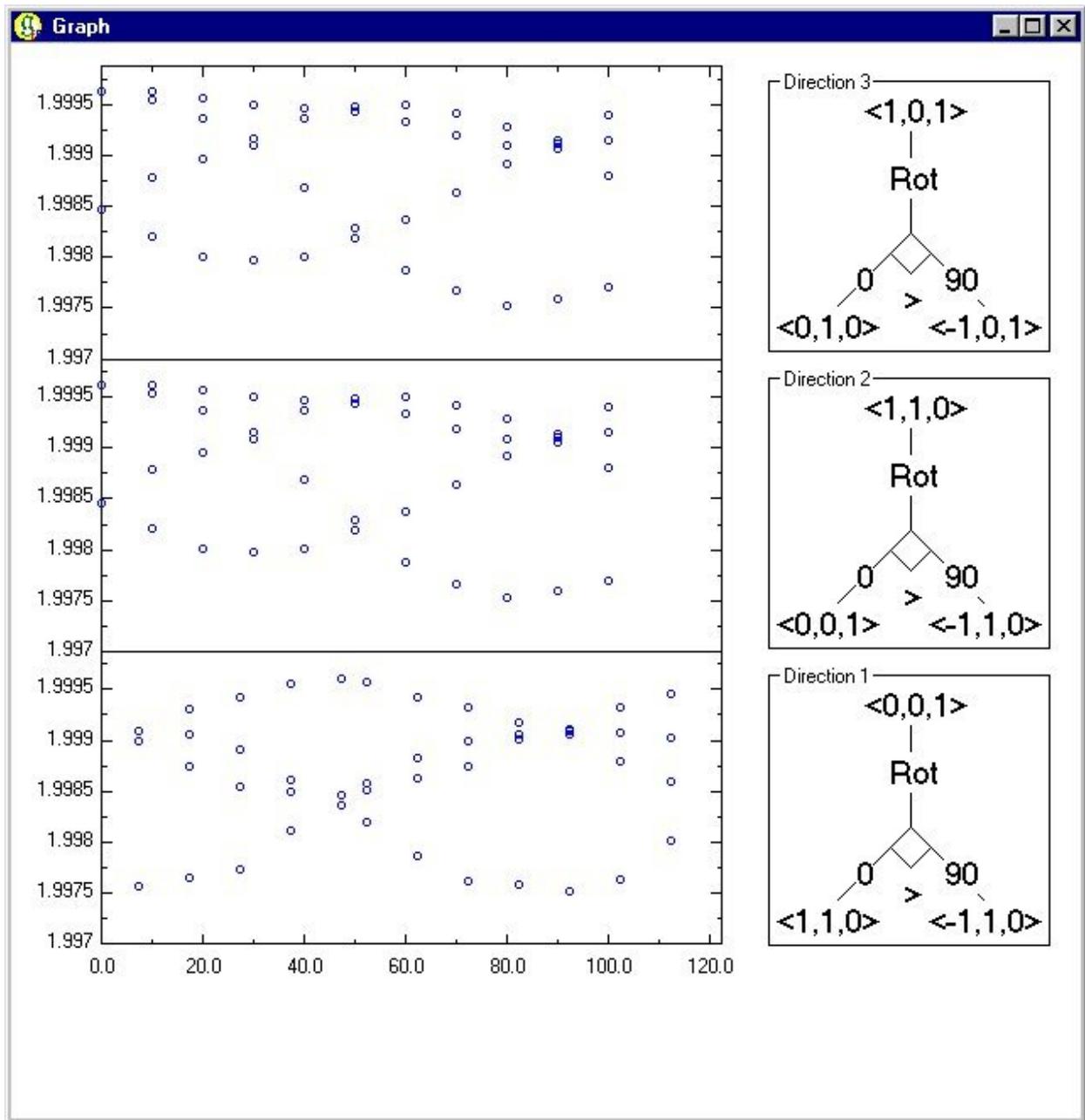
GTensor can determine main values and main axis directions of Lande factor for the defect that reveals magnetic moment activity. Such kind of calculations is important for scientists working in area of EPR, NMR, EDMR, etc.

What GTensor is used for?

Recent magnetic spectrometers usually are equipped with build-in g-tensor calculation programs. But still exists old EPR and NMR spectrometers (I am working on such one), without such software. Besides that, Gtensor seems to have some features that make it more flexible and user friendly in comparison with other programs.

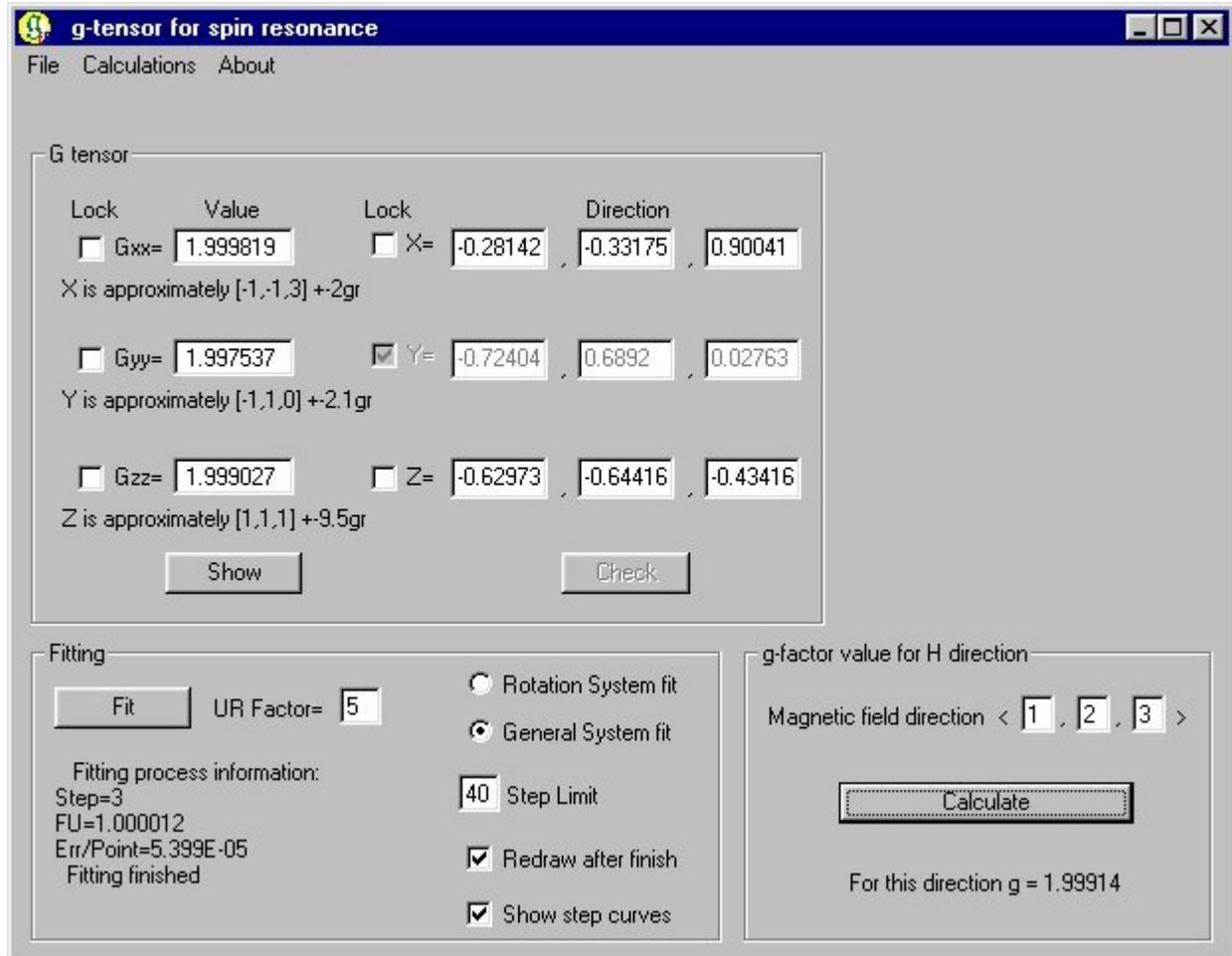
How does GTensor work?

Software fits g-factor - angle experimental data for up to three different directions to relevant spin-Hamiltonian equations, minimizing the fitting error. When the minimum in summary error is achieved, software calculates the coefficients for whole equation system.

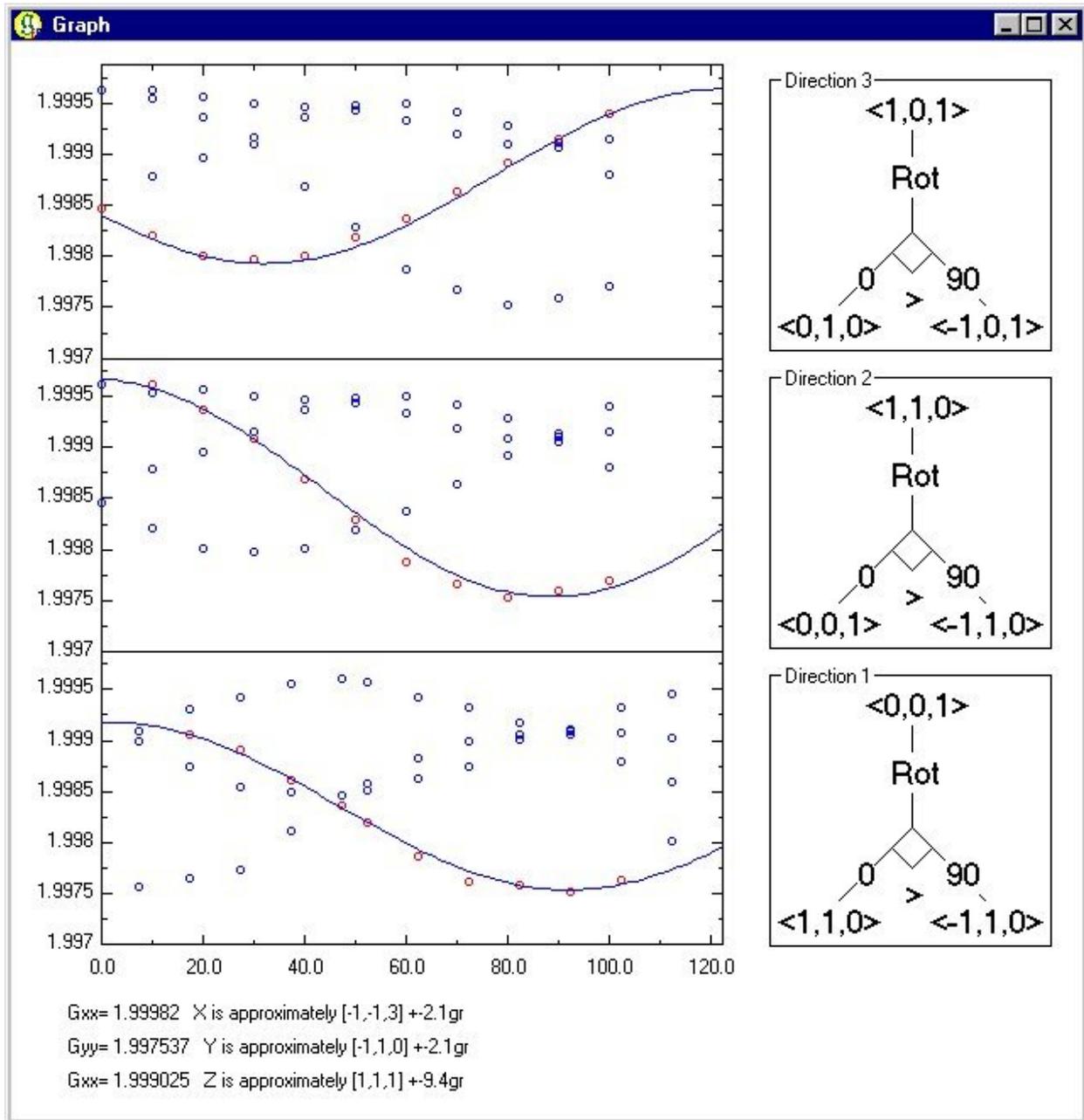


What do you need to run GTensor?

You need ASCII format data files with two columns. The Left column should be angle and the right relevant value for g-factor. It is also possible to use magnetic field values instead of g-factor values (in such case you will be asked to input magnetic field value for which  $g=2$  in your experimental setup). You also need data about rotation axis, direction at  $\text{ang}=0$  and rotation course.



What will you get?



After fitting you will get back g-tensor values for three main axes and the axes directions (in Muller indices) together with closest whole indexed directions and relevant errors.

## System requirements

- Windows 95/98, NT4.0 or higher (Japanese or English);
- For faster processing 48 MB RAM and at least 150 MHz processor are recommended;
- Display resolution 1024x768 pixels or higher.

## Input

- ASCII format, two-column data file.

## Output

- Graphical fitting report to view, save, print.
- \*.dat (ASCII) file with fitting results

## Fitting modes

- Rotation system fitting. Data for only one axis is fitted in this mode.
- General system fitting. Data for three axes are fitted simultaneously.

## Useful tools

- Possibility to mark data for fitting from large number of total data points. You can input all experimental data (for several lines) for an axis together and separate needed set of points just during the fitting process.
- Possibility to determine g-factor for arbitrary direction after fitting of g-tensor.
- Possibility to check pre-experimental model for defect geometry. For that you should input and lock some of g-tensor parameters prior to fitting.
- Possibility to edit experimental data.