

Free-fall Detector

**--Experience the usefulness of
accelerometer**

How to protect your mobile electronic
devices in a free-fall?

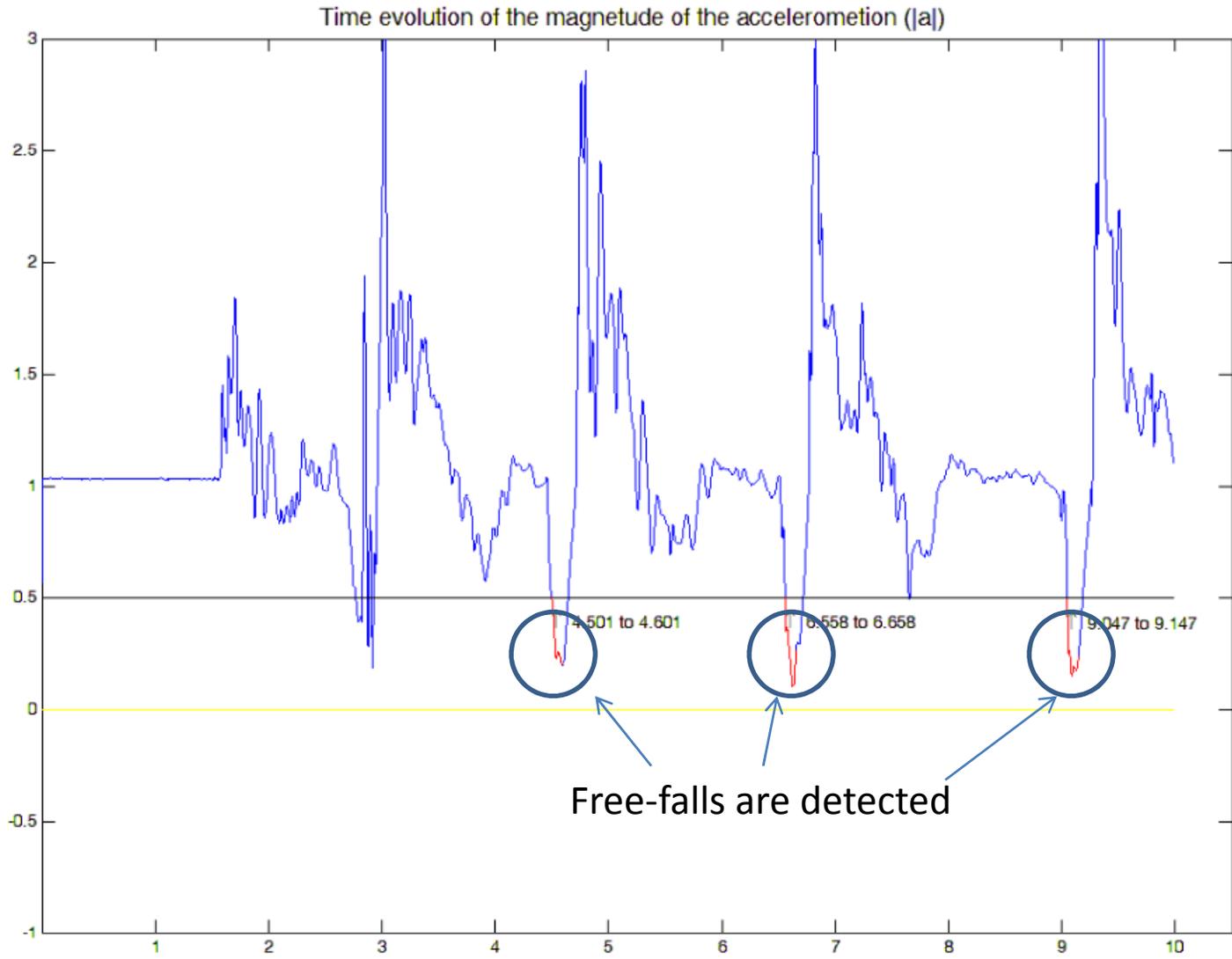
How to detect earthquake?

Use sensorstick and MATLAB® interface to detect free-fall.

Whenever a free-fall is detected, the period is shown on the screen and marked red color, accompanied by a beep sound



Real-time accelerometer data



When the acceleration is smaller than a programmable value (0.5g in this case) for a significant period of programmable time (0.1s in this case), the motion is considered as a free fall

Conclusion

- Learn that a simple idea can be extremely useful
- Fully programmable GUI
 - Free-fall threshold acceleration
 - Free-fall critical time
 - Detection mode (direct value as shown and integral alternative proposed recently)
- Do you have better criterion to detect free fall
- Earthquake detector can be realized similarly