

The Inter-calibration Exercise for Grain Size Analyses in Sediments aims at documenting and improving the quality of grain size measurements, by creating an international reference network. If you are interested to be included in the intercalibration exercise, please fill this form and send it by Fax: +39 0541 791045 email to project@csaricerche.com, with subject: "intercalibration exercise".

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Name and surname

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Research Centre / University / Public Association / Company

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Phone number / Fax number

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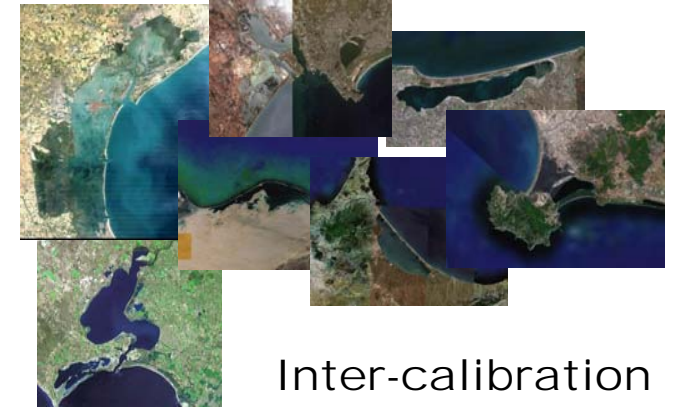
Contacts

Scientific coordinator

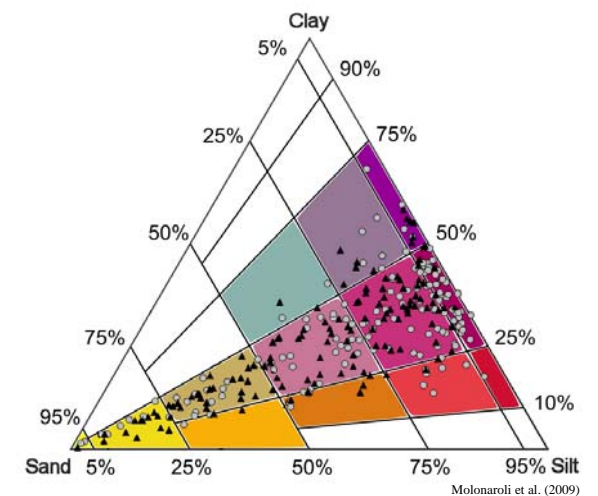
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## Inter-calibration Exercise for Grain Size Analyses in Sediments



## What is the scope of the Intercalibration Exercise?

- Involvement of analytical laboratories of Research Centres, Universities, Public Associations and Private Company to develop an international network;
- Analyses of real sediments samples (marine, lagoon, river) with different grain size and mineralogical characteristics;
- Comparison of grain size data determined by different instruments, analytical methods and laboratories.



Grain-size and grain-size distribution are among the key factors in sedimentology and landscape evolution, despite common standards have not yet been set up by the scientific community. These parameters determine the mechanical properties of sediments and provide information on the origin and history of the landscape evolution.

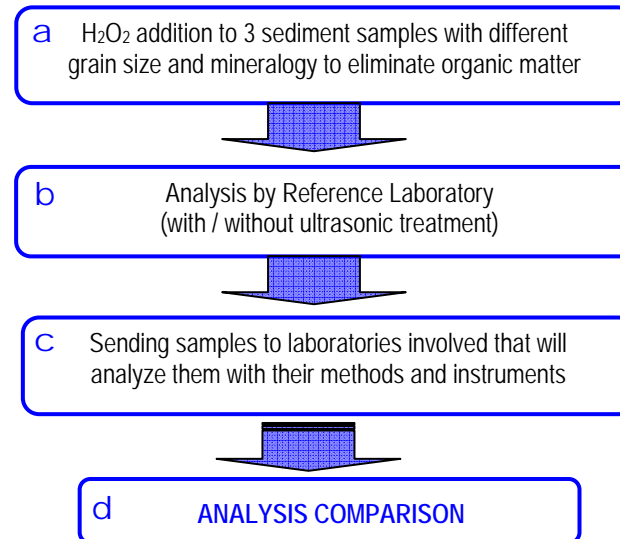
The problem of comparing grain-size analyses based on different techniques and physical principles has been discussed by several authors. Because of the differences in results, many comparative studies of grain-size techniques have been carried out over the last two decades.

Recently Gooseens (2008) published a detailed comparative study analysing four sediments with ten techniques. Although the trends were generally similar, he observed local differences between the results of grain size analyses deriving from different instruments.

Depending on the type of instruments used for grain size analysis sediments can be classified in different textural classes based on the sand/silt/clay ratios.

## EXERCISE 1

For Exercise 1 three sediment samples with different grain size and mineralogical characteristics will be analysed by the Reference Laboratory (RL; a, b). Then, samples will be sent by RL to the laboratories involved in the Intercalibration Exercise to be analyzed with their methodological protocols and instruments (c). Finally, analytical results will be collected by the RL and discussed in a final report (d).

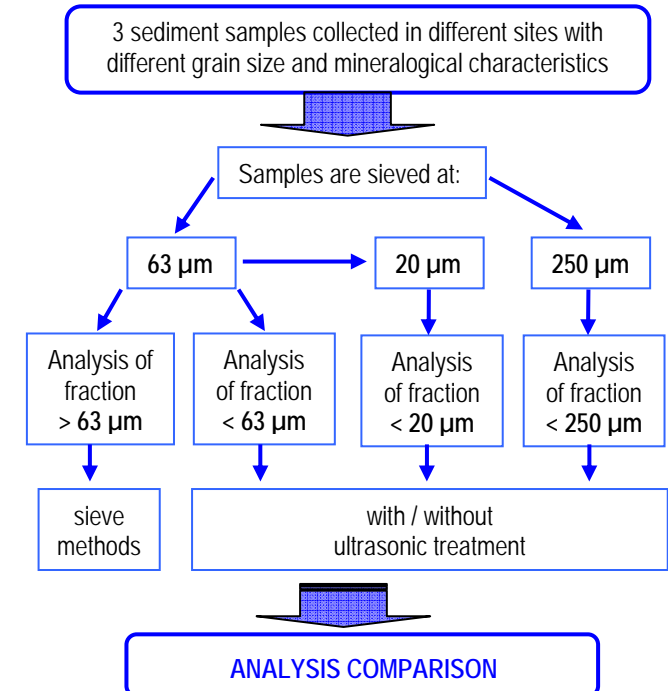


Exercise 1 is addressed to scientists and technicians focused on the wide use of grain size determinations in environmental studies.



## EXERCISE 2

For Exercise 2 three sediment samples collected in different sites with different mineralogical characteristics and different sand/clay/silt percentages will be sent by RL to laboratories involved in the Intercalibration Exercise to be sieved at different grain size and analyzed with different methods. Finally, analytical results will be collected by the RL and will be discussed in a final report.



Exercise 2 is addressed to scientists and technicians focused on sedimentological studies.

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