

Special session at the
International Conference on Fractional Differentiation and Its Applications
June, 23-25, 2014, Catania, Italy

Quo vadimus ?

To answer „Quo vadimus?“ requires to answer „Ubi sumus?“ first.

Some basic ubi-sumus-questions persist:

- Are mathematical models with fractional derivatives consistent with the laws of physics ?
- Are mathematical models with fractional derivatives consistent with the symmetries of nature ?

For questions, discussions and (partial) answers see:

*R. Hilfer, „Threefold Introduction to Fractional Derivatives“
in: R.Klages et al. (eds.), Anomalous Transport, Chapter 2,
Section 3, pages 47-59, (2008)*

<http://www.icp.uni-stuttgart.de/~hilfer/publikationen/html/ZZ-2008-ATFaA-17/ZZ-2008-ATFaA-17.Ch2.S3.html>

<http://www.icp.uni-stuttgart.de/~hilfer/publikationen/pdf/ZZ-2008-ATFaA-17.pdf>, Chapter 2, Section 3, pages 47-59

<http://www.icp.uni-stuttgart.de/~hilfer/publikationen/pdfa/ZZ-2008-ATFaA-17-a.pdf>, Chapter 2, Section 3, pages 47-59

For information and references on fractional time evolution:

<http://www.icp.uni-stuttgart.de/~hilfer/publikationen/pdf/ZZ-2011-FDRA-207.pdf>

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