# Research interests

I am interested in fundamental problems of computational mathematics, especially those connected with functional analysis, approximation theory, harmonic analysis and convex geometry. In recent years I actively worked the following areas:

- Wavelet theory

- Compressed sensing and the general theory of sparse representations

- Non-linear approximation, in particular greedy algorithms and their use in $m$-term approximation.

- Mathematics connected with 'reduced basis' method of studying parametric PDE's

- Geometry of Banach spaces