

# **High-latitude and small scale magnetic field during the solar cycle**

Elena E. Benevolenskaya

(1) Stanford University, USA (2) Pulkovo Astronomical Observatory, Russia  
(elena@quake.stanford.edu)

There are different types of small scale magnetic fields on the Sun, so-called 'magnetic carpet', 'ephemetic regions' and polar magnetic facular. The question arises how much they contribute to the magnetic flux to compare with the complexes of solar activity during the solar cycle. Evolution of the small scale elements is an important problem in relation to the problem of the solar cycle nature. The studying of the evolution of the small scale magnetic field during the current solar is represented. The possible mechanism of the solar magnetic field generation is discussed.