

Advanced Structural Geology 206-24301 – 2 credits

Prof. Dov Bahat

Syllabus

Principles of fractography and tectonofractography 2. Local fracturing – fundamental problems in geological fracturing 3. Regional fracture, paleostress directions, and local amplitude of paleostress 4. Faults and joints – interactions. Strike-slip faults; normal faults 5. Folding and jointing. 6. Examples from 4 provinces of jointing in sedimentary rocks – New York, Utah, southern England and the Negev 7. Examples from 4 provinces of jointing in granites – Germany, Czech Republic and two examples from California

Bibliography

1. Bahat, D. (1991) Tectonofractography, Springer-Verlag, Heidelberg.
 2. Cosgrove, J. W. And Engelder, T. – editors (2004) The initiation, propagation and arrest of joints and other fractures, The Geological Society of London, Bath (in press).
 3. Bahat, D., Rabinovitch, A. And Frid, V. (2004) Tensile fracturing in rocks, Springer-Verlag, Heidelberg (in press)
 - 4) Garfunkel, Z (2001).The nature and history of motion along the Dead Sea Transform (Rift), In Horowitz, A, *The Jordan Rift Valley*, Balkema 627-651.
- Course will also include guided reading.

Course Requirements

2 hr lecture

Grading

100% final exam