

Stress Map Germany 2016

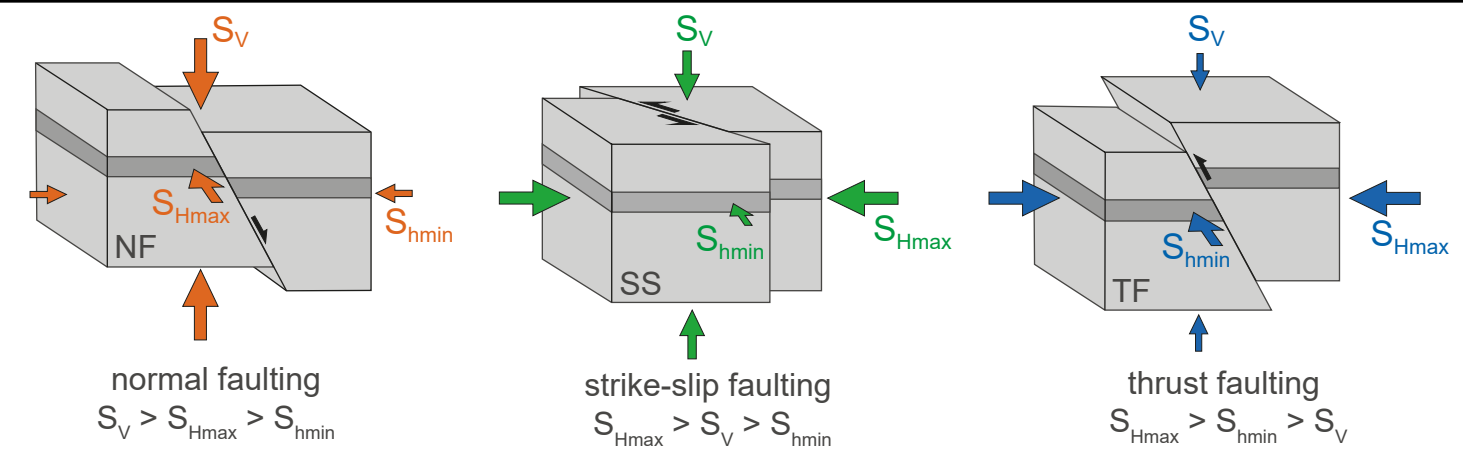


Editors:
 Karsten Reiter¹, Oliver Heidbach², Birgit Müller³, John Reinecker⁴ and Thomas Röckel⁵

¹TU Darmstadt, Institut für Angewandte Geowissenschaften (E-Mail: reite@geo.tu-darmstadt.de),
²Deutsches GeoForschungsZentrum GFZ, Potsdam, ³WZL Institut für Angewandte Geowissenschaften, Karlsruhe,
⁴GeoThermal Engineering GmbH, Karlsruhe, ⁵Planak & Partner, Ingenieurbüro für Hydrogeologie und Umweltschutz, Bayreuth

Method	Quality	Stress Regime
	A	
	B	
	C	
	D	
	E	

Under the assumption, that the vertical stress (S_v) is a principal stress, the orientation of the 3D stress tensor is defined by the orientation of the maximum horizontal stress (S_{Hmax}) only. The minimum horizontal stress (S_{Hmin}) is perpendicular to S_{Hmax} . The orientation of S_{Hmin} is illustrated by lines with different length in the map. The length of each line is a measure for the quality of the data, the symbol specifies the method and the colour indicates the stress regime. Data with the lowest quality (E) are illustrated without any further information as a point. Used stress data are part of the World Stress Map (WSM) database release 2016 and freely available. Further information about the data, criteria, data analysis and quality ranking be located on the WSM webpage: www.world-stress-map.org.



Citation of this map
 Reiter, K., Heidbach, O., Müller, B., Reinecker, J., Röckel, T. (2016). Spannungskarte Deutschland 2016. doi:10.5880/WSM.Germany2016

Key references
 Heidbach, O., Rajabi, M., Reiter, K., Ziegler, M. and the WSM Team. (2016). World Stress Map Database Release 2016. GFZ Data Services. doi:10.5880/WSM.2016.001

References of used data and software
 Heidbach, O., Hohné, J. (2008). CAS3M - a tool for the visualization of the World Stress Map data base. Computers and Geosciences, 34, 193-191. doi:10.1016/j.cageo.2007.06.004

World Stress Map Database Release 2016. GFZ Data Services.
 Mapping Tools released: Eos Trans. 79 (47), 575. doi:10.1029/2009TC002920

Becker, J., D. F. Sandwell, W. H. F. Smith, J. Braud, B. Binder, J. Dognon, D. Fabre, J. France, S. Ingalls, S.H. Kim, R. Lacouture, K. Marks, S. Nelson, A. Pharaoh, R. Trimmer, J. Von Rosenberg, G. Wallace, P. Weatherall. (2009). Global Bathymetry and Elevation Data at 30 Arc Seconds Resolution: SRTM30 PLUS. Marine Geodesy, 32(4), 355-371. doi:10.1080/01490410903297766

Röckel, T., Lemp, C. (2003). Der Spannungszustand im Norddeutschen Becken. Erdöl Erdgas Kohle 119(2):73-80.

