

# Stanford

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## Peter Blisniuk

Research and Development Scientist and Engineer, Department of Geological Sciences

### Bio

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#### CURRENT ROLE AT STANFORD

I manage the Stable Isotope Biogeochemistry Laboratory in the Mitchell Building, part of the Environmental Measurements Facility 2 (EMF2) at Stanford's School of Earth Sciences. The lab houses 8 analyzer systems interfaced with 5 mass spectrometers which are used for high-precision stable isotope measurements of a wide variety of materials from terrestrial as well as marine environments. My role there is to ensure smooth operation of the instrumentation, to closely monitor the quality of the generated data, and to work with students and researchers to optimize existing or develop new methods for both sample preparation and analysis.

#### EDUCATION AND CERTIFICATIONS

- PhD, Dartmouth College , Earth Sciences (1996)
- Diploma, Universität Karlsruhe, Germany , Geology (1988)

### Professional

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#### WORK EXPERIENCE

- Research and Development Scientist and Engineer - Stanford University (January 1, 2007)
- Associate Professor - Universität Potsdam. (9/1/2004 - 12/31/2006)
- Professor - Universität Hannover (9/1/2003 - 8/31/2004)
- Assistant Professor - Universität Potsdam. (3/1/1997 - 8/31/2003)
- Postdoctoral Researcher - Universität Potsdam. (July 1, 1996 - 2/28/1997)

### Publications

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#### PUBLICATIONS

- **Stable isotopic evidence for climate and basin evolution of the Late Cretaceous Songliao basin, China** *PALAEOGEOGRAPHY PALAEOCLIMATOLOGY PALAEOECOLOGY*  
Chamberlain, C. P., Wan, X., Graham, S. A., Carroll, A. R., Doebbert, A. C., Sageman, B. B., Blisniuk, P., Kent-Corson, M. L., Wang, Z., Wang ChengShan, C. S. 2013; 385: 106-124
- **Tectonic and climatic control on evolution of rift lakes in the Central Kenya Rift, East Africa** *QUATERNARY SCIENCE REVIEWS*  
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- **Sedimentology, sedimentary petrology, and paleoecology of the monsoon-driven, fluvio-lacustrine Zhada Basin, SW-Tibet** *SEDIMENTARY GEOLOGY*  
Kempf, O., Blisniuk, P. M., Wang, S., Fang, X., Wrozyna, C., Schwalb, A. 2009; 222 (1-2): 27-41

- **delta O-18 and delta D of streamwaters across the Himalaya and Tibetan Plateau: Implications for moisture sources and paleoelevation reconstructions** *EARTH AND PLANETARY SCIENCE LETTERS*  
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- **The basin-range system along the south segment of the Karakorum fault zone, Tibet** *INTERNATIONAL GEOLOGY REVIEW*  
Wang, S., Blisniuk, P., Kempf, O., Fang, X., Chun, F., Wang, E.  
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- **Orthogonal to oblique rifting: effect of rift basin orientation in the evolution of the North basin, Malawi Rift, East Africa** *BASIN RESEARCH*  
Mortimer, E., Paton, D. A., Scholz, C. A., Strecker, M. R., Blisniuk, P.  
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- **Chemical weathering, erosion, and CO<sub>2</sub> consumption in the southern Tibetan plateau and eastern syntaxis of the Himalaya** *17th Annual V M Goldschmidt Conference*  
Hren, M. T., Chamberlain, C. P., Hilley, G. E., Blisniuk, P. M., Bookhagen, B.  
PERGAMON-ELSEVIER SCIENCE LTD.2007: A419–A419
- **Major ion chemistry of the Yarlung Tsangpo-Brahmaputra river: Chemical weathering, erosion, and CO<sub>2</sub> consumption in the southern Tibetan plateau and eastern syntaxis of the Himalaya** *GEOCHIMICA ET COSMOCHIMICA ACTA*  
Hren, M. T., Chamberlain, C. P., Hilley, G. E., Blisniuk, P. M., Bookhagen, B.  
2007; 71 (12): 2907-2935
- **Channel geometries and internal deformation patterns of the Playa Las Tablas channel-levee system, Nicaragua** *Atlas of deep-water outcrops*  
Struss, I., Blisniuk, P., Brandes, C., Kischkies, M., Winsemann, J.  
AAPG.2007; 56
- **Anatomy of anticlines, piggy-back basins and growth strata: a case study from the Limon fold-and-thrust belt, Costa Rica** *SEDIMENTARY PROCESSES, ENVIRONMENTS AND BASINS: A TRIBUTE TO PETER FRIEND*  
Brandes, C., Astorga, A., Blisniuk, P., Littke, R., Winsemann, J., Nichols, G., Williams, E., Paola, C.  
2007; 38: 91–110
- **Continental response to active ridge subduction** *GEOPHYSICAL RESEARCH LETTERS*  
Haschke, M., Sobel, E. R., Blisniuk, P., Strecker, M. R., Warkus, F.  
2006; 33 (15)
- **Links between Mountain Uplift, Climate, and Surface Processes in the Southern Patagonian Andes** *ANDES: ACTIVE SUBDUCTION OROGENY*  
Blisniuk, P. M., Stern, L. A., Chamberlain, C., Zeitler, P. K., Ramos, V. A., Sobel, E. R., Haschke, M., Strecker, M. R., Warkus, F., Oncken, O., Chong, G., Franz, G., Giese, et al  
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- **Mechanics and erosion of basement-cored uplift provinces** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*  
Hilley, G. E., Blisniuk, P. M., Strecker, M. R.  
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- **Stable isotope paleoaltimetry: A critical review** *AMERICAN JOURNAL OF SCIENCE*  
Blisniuk, P. M., Stern, L. A.  
2005; 305 (10): 1033–74
- **Climatic and ecologic changes during Miocene surface uplift in the Southern Patagonian Andes** *EARTH AND PLANETARY SCIENCE LETTERS*  
Blisniuk, P. M., Stern, L. A., Chamberlain, C. P., Idleman, B., Zeitler, P. K.  
2005; 230 (1-2): 125–42
- **Rates of late Quaternary normal faulting in central Tibet from U-series dating of pedogenic carbonate in displaced fluvial gravel deposits** *EARTH AND PLANETARY SCIENCE LETTERS*  
Blisniuk, P. M., Sharp, W. D.  
2003; 215 (1-2): 169–86
- **Stable isotope composition of precipitation across the southern Patagonian Andes** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*  
Stern, L. A., Blisniuk, P. M.

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● **Normal faulting in central Tibet since at least 13.5 Myr ago** *NATURE*

Blisniuk, P. M., Hacker, B. R., Glodny, J., Ratschbacher, L., Bi, S. W., Wu, Z. H., McWilliams, M. O., Calvert, A.  
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● **ESR dating of the evolution of the Shuanghu basin in the northern Tibetan Plateau** *ACTA GEOLOGICA SINICA-ENGLISH EDITION*

Wu, Z. H., Jiang, W., Blisniuk, P., Bi, S. W., Zhang, S. K., Kuchel, O., Mao, Y.  
1999; 73 (3): 289-93

● **Foreland normal fault control on northwest Himalayan thrust front development** *TECTONICS*

Blisniuk, P. M., Sonder, L. J., Lillie, R. J.  
1998; 17 (5): 766-79

● **INTEGRATION OF EAST-AFRICAN PALEOSTRESS AND PRESENT-DAY STRESS DATA - IMPLICATIONS FOR CONTINENTAL STRESS-FIELD DYNAMICS** *JOURNAL OF GEOPHYSICAL RESEARCH-SOLID EARTH*

BOSWORTH, W., STRECKER, M. R., BLISNIUK, P. M.  
1992; 97 (B8): 11851-65

● **ROTATION OF EXTENSION DIRECTION IN THE CENTRAL KENYA RIFT** *GEOLOGY*

STRECKER, M. R., BLISNIUK, P. M., EISBACHER, G. H.  
1990; 18 (4): 299-302