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## Coastal upwelling off Mauritania inferred from helium isotope disequilibrium

Sebastian Rütten (1), Reiner Steinfeldt (1), Jürgen Sültenfuß (1), Marcus Dengler (2), and Monika Rhein (1) (1) Institut für Umweltphysik, Universität Bremen, Bremen, Germany (sebastian-ruetten@web.de), (2) IFM-GEOMAR, Leibniz-Institut für Meereswissenschaften, Universität Kiel, Kiel, Germany

By bringing cold, nutrient rich water into the surface layer, coastal upwelling strongly affects the local climate as well as the biological activity. As upwelling velocities are too small to be measured directly (in the order of  $10^{-5}$ m/s) an indirect method using the helium isotopic ratio is applied here instead.

The datasets collected during three cruises (2006-2008) in the eastern tropical North Atlantic Ocean, including the upwelling region off Mauritania, consist of CTD profiles, water samples for helium isotope analysis and microstructure shear measurements.

To compare the results, upwelling velocities are additionally calculated from wind fields taken from the QuikSCAT SeaWinds scatterometer data. First results show a good agreement of the two methods.