

## Where to next with SQUIDs in Exploration?

Andreas Chwala, Ronny Stolz, Viatcheslav Zakosarenko, and Hans-Georg Meyer

IPHT Jena, Albert-Einstein-Straße 9, 07745 Jena, Germany;  
e-mail: [andreas.chwala@ipht-jena.de](mailto:andreas.chwala@ipht-jena.de)

### ABSTRACT

First experiments on using SQUIDs for geophysical purposes are dated back to the early 1970s. But it took more than 20 years until SQUIDs found some commercial application in exploration.

Nowadays, SQUIDs have reached a quite mature status in some systems, e.g. rock magnetometers and Transient Electromagnetics (TEM). But many more explorational methods could also benefit from the advantages of SQUIDs, such as high sensitivity and a flat frequency response from DC to up to several MHz.

In this paper I will highlight fields where I see that SQUID could have a major impact in the near future, inter alia Airborne TEM, AFMAG, remote referencing for TEM and Magnetotellurics.