

Mechanics of cement-steel and cement-rock interfaces

Interfaces between cement and steel represent weak zones in structures involving both materials. In well construction, in addition to cement-steel interfaces, interfaces between cement and rock represent a weak zone. The focus in this session will be on structural, mechanical and hydraulic properties of interfaces between cement and other materials (steel, rock,...) as well as on failure at such interfaces. Both experimental and theoretical/numerical papers are welcomed.

TOPICS:

- Mechanical properties of interfaces
- Hydraulic properties of interfaces
- Failure at and fracture propagation along interfaces
- Microscopic analysis of interfaces
- Nanoindentation studies of interfaces