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| <b>Oberseminar Geometrie</b> | <b>Wednesday 2nd October 2013</b> |
| Department of Mathematics    | <b>10:20–12:00</b>                |
| University of Fribourg       | Seminar room, Math. II (Lonza)    |

THOMAS METTLER (Oxford)

**‘Characterizing classical minimal surfaces via the entropy differential’**

*Let  $M$  be a nowhere umbilic classical minimal surface in Euclidean 3-space. We observe that the induced metric,  $g$ , on  $M$  may be conformally deformed — in an explicit manner — to a smooth metric  $g'$  which is a critical point of a natural geometric functional  $E$ . The diffeomorphism invariance of  $E$  gives rise to a conservation law  $T$ . We characterize several important model surfaces in terms of  $T$  — including Enneper’s surface, the catenoid and the helicoid. Joint work with J. Bernstein.*