Software engineering theory and practice is still to a large extent based more on faith than on science. Only by contributing to the scientific and empirically grounded body of knowledge within a specific area of application, theory and practice can develop. Experimentation is an important scientific approach to collect empirical data and to test theories as well as to bring light to new phenomena so that theories can be formulated and corrected. This is the background for the emerging field of experimental software engineering.

The focus of this minitrack is on experiments and experimental studies performed in academic or industrial settings where the aim is to study the software professionals' work practices related to the development of software. This minitrack is divided in two three-paper sessions. The papers are briefly introduced in the following.

The three papers in the first session are experiments performed in an academic setting. Syversen, Anda and Sjøberg report the results from an experiment with 26 subjects where they explore how a use case model can best be applied in an object-oriented development process. Serrano, Calero and Piattini describe how to apply the experimental method in metrics definition for multidimensional data models. Their paper gives an overview of the method including a description of how it was applied. The first session is concluded with a paper authored by Liu and Grandon where they empirically explore with 79 subjects how task performance and domain-specific self-efficacy influence the perceived ease of use of object-oriented analysis techniques.

The first two papers in the second session include a set of experiments and an empirical study performed in an industrial setting. Jokela describes five different experiments where the attempt is to assess the quality of the usability engineering processes of four different companies. Jokela explains how the assessment process is iteratively changed and improved based on the results of the earlier experiments. Börjesson and Mathiassen compare two software process improvement initiatives carried out in industry. They focus on factors affecting the implementation success. Dugan, Glinert and Rogers conclude the minitrack by introducing a technology-focused methodology called CAMELOT, which is intended for testing computer supported co-operative work software. They report results from an experiment where the proposed methodology was tried out.