BOOK OF ABSTRACTS

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Integrating perspectives on adults' and children's math anxiety

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Research in cognitive, developmental, and educational psychology has accumulated over the last decades, highlighting that many individuals experience negative feelings toward numerical information and mathematical problems, and that these feelings interfere with mathematical performance and achievements among both adults and young children. In the present Symposium we will seek to offer new insights from research on populations that are still relatively understudied in math anxiety research, and that span from parents of preschool-aged children to adult learners and to college professors in Europe and in the US. In the first contribution Carlo Tomasetto and colleagues will present data on the longitudinal link between math anxiety among parents of preschool-aged children – as measured when children were aged 3 years – and the development of children's math skills from age 3 to age 8, as well as with children's math anxiety. In the second contribution, Gerardo Ramirez and colleagues will focus on the role of teachers as socializing agents of math anxiety among students, by taking an original perspective on college professors, and by analyzing their validating vs. invalidating responses to students' emotional experience toward math. The contribution of Caterina Primi and Maria Anna Donati will focus on adults as well, although not in the role of socializers but rather of learners. In their research, they will adopt a person-centered approach to characterize students with diverse profiles of math-related and statistics-related anxiety.

Presentation 1: Longitudinal relations between parents' math anxiety and children's mathematical development from age 3 to 8

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Past studies highlight that parents' math anxiety may be associated to children's math outcomes from as early as the primary school years. In this longitudinal study we investigated the associations between parents' math anxiety - as measured when children were in the first preschool year at age 3 – and the development of children's mathematical skills from age 3 to age 8 (N = 125). At age 8 we also assessed children's math anxiety and math self-concept. Results of longitudinal structural equation models revealed that parents' math anxiety at age 3 was associated with the average level of children's mathematical skills during the preschool years, from age 3 to age 5. In turn, children's mathematical skills during the preschool years were associated with children's mathematical skills and math self-concept, but not with children's math anxiety, at age 8. An indirect effect of parents' math anxiety at age 3 on children's mathematical skills at age 8 also emerged though children's mathematical skills during the preschool years. In sum, these findings suggest that despite not being a direct source of children's math anxiety, parents' math anxiety may have enduring effects on the development of children's early mathematical skills.