# ICM 1998, Berlin, Aug. 18–27

## Abstracts of Short Communications and Posters

### Section:

## 18. Teaching and Popularization of Mathematics

1991 MS Classification: 51M04
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**Remarks on quadrangles**
A classification scheme for the most common convex quadrangles, a so-called house of quadrangles is discussed. There appears a gap in the systematic treatment which has to be filled with an “exquadrangle”, ie, a quadrangle having an excircle; that is a circle touching the supporting lines of all four sides of the quadrangle whose center is outside the quadrangle (not a new notion, but rather unknown).
A characterization by diagonal segments and the diagonal angle leads to interesting results concerning quadrangles having an incircle and/or an excircle. Theorem: In every class of convex quadrangles with given diagonal segments there is up to congruence exactly one circumscribed quadrangle and at most one exquadrangle.