# PANEL SESSION
## Future research directions: Evidence from this conference

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In the sixties and seventies work on relational databases created a convergence point for most database research. A theory was developed to design relational databases, database management systems were developed to show that relational databases could be implemented efficiently, relational query languages were proposed to make the relational data model acceptable for end-users, etc. Now that the relational model has become a standard for business, we find that further appicability of the database principles of persistence, sharability, concurrent use, declarative description, high-level query languages, as well as logging and backup are of sufficient value to be transferred to systems supporting engineering, manufacturing, decision-making, and planning tasks.

Research in the eighties will hence be characterized by new application domains and their database support. The strength of the relational data model and its implementation will be tested. Influences from programming languages and artificial intelligence give direction to database research. Examples of those, among many, are object-oriented databases and deductive databases. Database research is diverging in many different directions. At the end of this conference it is good to look at the many reserach directions in retrospect and see what has been achieved this last decade. For this purpose a few session chairmen are invited to report on the status of the new directions and to formulate answers to questions like:

- is the object-oriented approach the relational approach of the nineties?
- what has brought artificial intelligence to the database community?
- is the extensible database approach the right approach to support new application domain such as office automation, CAD/CAM, carthography, etc.?
- are more results to be expected from recursive query optimization?