## Preface

These proceedings document the talks presented at the meeting of the Division of Particles and Fields of the American Physical Society held on the campus of Wayne State University from July 26 to July 31, 2009. Over 370 attendees participated in five days of well-attended scientific sessions and social events. The on- and near-campus venue of dorms, conference center and restaurants, all within walking distance, provided a congenial atmosphere. Participants especially enjoyed this venue with the mild and sunny weather during the period of the conference.

A welcome reception was held in the elaborate Adam Strohm Hall in the Main Branch of the Detroit Public Library, adjacent to the campus. Participants enjoyed conversation, food, drink and music in this grand setting. A sumptuous conference dinner was held in the main exhibit hall of the Henry Ford Museum in Dearborn. Attendees and their guests dined amidst the exhibits of cars, planes and artifacts documenting the industrial history of America in the golden age of the automobile.

An evening public lecture entitled "Einstein's Biggest Blunder: A Cosmic Mystery Story" by Lawrence Krauss attracted a large crowd providing an attentive audience, with plenty of lively questions following the talk.

The plenary speakers did a great job of choosing key developments in their fields to present in their talks of 20 to 30 minutes. A list of plenary speakers is included in the Proceedings Table. A special thank you goes to the organizers of the parallel sessions, who worked hard to recruit speakers to provide good coverage of current research. The parallel session topics and conveners are also included in the Proceedings Table.

Finally, thanks are due to the staffs of the Department of Physics and Astronomy, Office of Special Events, McGregor Conference Center, Student Center, Audio-Visual Services, and the Office of Housing and Residential Life. We gratefully acknowledge financial support from the Department of Energy, the National Science Foundation, the American Physical Society, the WSU College of Liberal Arts and Sciences, and the European Physics Journal.

Paul Karchin and Alexey A Petrov Co-Chairs

on behalf of the Organizing Committee