GUEST EDITORIAL



Special Issue: 1st China Fusion Energy Conference—Part II

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China has a long history of more than 60 years in fusion energy research. Before 1990, many different magnetic confinement devices had been explored to study fundamental fusion issues, including theta pinch, mirror machine, stellarator, tokamak, etc. The decades after 1990 saw a significant growth in international collaboration. Based on the T-7 tokamak from USSR, the HT-7 tokamak was constructed in 1993 at the Academia Sinica Institute of Plasma Physics, and based on the ASDEX tokamak from Germany the HL-2A tokamak was constructed in 2002 at the Southwestern Institute of Physics. These two machines have played an important role in training Chinese scientists in tokamak research. Accelerated growth of the Chinese fusion program started in the beginning of the new millennium during which the first fully superconducting tokamak EAST started operation, and China joined the International Thermonuclear Experimental Reactor (ITER) as one of seven parties. The magnitude of these projects led to a rapid expansion in manpower, especially in fusion engineering and technology. In complement with EAST, the first strongly shaped, advanced tokamak HL-2M has been constructed to support ITER and to develop the scientific and technological basis for future pilot plants. By 2019, both funding resources and technical outputs in China fusion research have reached a level comparable to other leading fusion research countries worldwide. The timing was right to initiate a domestic conference for the entire fusion community to display exciting new results and to share ideas to move the endeavor forward. This is the genesis of the 1st China Fusion Energy Conference, some details of which have been reported in the editorial of the Special Issue Part 1 (https://link.springer.com/article/ 10.1007/s10894-020-00279-w) by the guest editors. JOFE is honored to play a role in recording this significant event.

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