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Formation of closed-field line topology by using odd-parity rotating magnetic field antenna

Wenqiu Li, Gang Wang Aerospace Information Research Institute, Chinese Academy of Sciences e-mail (speaker):beiste@163.com

By employing an odd-parity rotating magnetic field (RMFo) antenna [1], the field reversed configuration (FRC), which can generate high- β value compact toroid, is obtained. With appropriate antenna size design and current excitation, the closed-field line topology is formed, this closed-field line topology is essential to the torodial electron current, which aimed for forming the FRC. The preliminary results are shown in Figure 1.

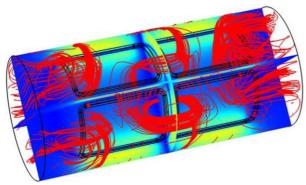


Figure 1 Closed-field line topology

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REFERENCES

[1] S. A. Cohen, B. Berlinger, C. Brunkhorst, et al. Phys. Rev. Lett., 98, 145002 (2007)