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Recent Doppler Backscattering results from EAST tokamak CHU ZHOU, ADI LIU, XIAOHUI ZHANG, JIANQIANG HU, MINGYUAN WANG, CHANGXUAN YU, WANDONG LIU, HONG LI, TAO LAN, XUAN SUN, JIN-LIN XIE, CAS Key Laboratory of Geospace Environment, Department of Modern Physics, University of Science and Technology of China, WEIXING DING, Department of Physics and Astronomy, University of California, Los Angeles, CAS KEY LABORATORY OF GEOSPACE ENVIRONMENT, UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA TEAM, DEPARTMENT OF PHYSICS AND ASTRONOMY, UNIVERSITY OF CALIFORNIA AT LOS ANGELES COLLABORATION — A Doppler reflectometer system has recently been installed in the EAST tokamak. It includes two separated systems, one for Q-band and the other for V-band. The optical system consists of a fixed flat mirror and a steerable parabolic mirror, which enabling the measurement of perpendicular wave number in the range of 4-22 /cm, with the wave number resolution around 2 /cm, while the radial location can cover the whole minor radius for L mode and the whole pedestal for H mode on EAST. A 2D Gaussian Ray tracing code is used to calculate the scattering location, the perpendicular wave number and the resolution. In EAST last experimental campaign the Doppler shifted signals have been obtained and the radial profiles of the perpendicular propagation velocity during L-mode and H-mode are calculated. The Er evolution during L-H and H-L transition have also been measured. The two separated systems are also used as a poloidal coherent system together to study the GAM in EAST tokamak.

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