

R&D on thin-gap RPC towards production for ATLAS Phase-2 upgrade

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New type of Resistive Plate Chamber (RPC) will be installed in the ATLAS detector during the Phase-II Upgrade. Chinese cluster (USTC-SDU-SJTU) has made important contribution in producing, testing and improving this new type of RPC. To match the requirement of the upgrade, the width of RPC gas gaps reduced from 2 mm to 1 mm and faster Front-End Electronics were applied. Simultaneously, many R&D efforts have been performed by simulations together with experimental measurements. Towards the mass construction, the production technology and QC method will also be discussed in this talk.

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