# The Correction Method of the Single Channel-Based CCP for the DUPIC Fuel

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## Abstract

A thermal-hydraulic analysis of the DUPIC fuel loading in the CANDU reactor is presented.The CCP values obtained from the single channel analysis have been corrected for DUPIC fuel by comparing the CHF results of the 37-element and 43-element fuels of subchannel analysis. By sampling some important fuel channel, the CCP prediction uncertainty is quantified. It is found that the prediction uncertainty is not significantly large. This study shows that the axial power distribution of the DUPIC fuel bundle string may enhance the thermal margin. On the other hand the radial (ring) power distribution may degrade the thermal margin when compared with the standard fuel bundle string.