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Simulating the cosmic distribution of neutral hydrogen and its connection with galaxies

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SIMULATING THE COSMIC DISTRIBUTION OF
NEUTRAL HYDROGEN
AND
ITS CONNECTION WITH GALAXIES

ALIREZA RAHMATI

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Front: The column density distribution of neutral hydrogen in a photoshoped simulated galaxy. This design is motivated by the main findings of Chapter 4.

Back: Ancient constellations as published in *The book of fixed stars* by the famous Iranian astronomer, Abd al-Rahman al-Sufi in 964 A.D. This highly influential book has been reproduced numerous times during the last millennium. The illustrations used for the design of the back-cover are taken from a version produced in 1430-1440 A.D. in Samarkand (Uzbekistan), which is accessible through the following link:

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SIMULATING THE COSMIC DISTRIBUTION OF
NEUTRAL HYDROGEN
AND
ITS CONNECTION WITH GALAXIES

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