## TFY4235/FY8904 Computational Physics, Spring 2013

## Problem Set 7

## Problem 1.

Generate a histogram of gaussian distributed random numbers with mean value equal to zero and variance equal to one using (a) the Box-Müller algorithm and (b) the Metropolis algorithm. Calculate the correlation function  $\langle x(t)x(t+\tau)\rangle$  for the sequence of numbers in both cases.