Q3: In the solution file for exam 2012 problem 2(d), can you explain that how elements Y_tQ_{\epsilon}MY_t, Y_tQ_{\epsilon}MY_{t-1} and Y_{t-1}M^TQ_{\epsilon}MY_{t-1} in the exponent show that node (i,t) has neighbours {(i,t-1), (i,t+1), {(j,t), j \in N_i}}?

A3: The first terms suggest that {(j,t), j \in N_i} are neighbours of i. The second term suggest that{(j,t-1), j \in N_i} are neighbors of (i,t), in addition to the contribution from the diagonal, (i,t-1). By this therm also contribute for the pair (t,t+1) adding, {(j,t+1), j \in N_i} and (i,t+1). The third term is not relevant since it does not contain (i,t).

Q2: In the exam 2015 problem 1, the solution to this problem says that Z(s_i) are multinormal distributed. While in the problem it only says that \epsilon_i are independent and independent of the process Y(s). No assumption on the distribution of \epsilon_i (gaussian) is made. So my question is: is the assumption that \epsilon_i is gaussian missing?

A2:In order to derive the distribution of Z() one must assume that epsilon is Gaussian as well. In order to find the mean and variance the Gaussian assumption is not necessary. If you get this type of question on the exam where you feel that something is missing in order for you to answer the question, then state the additional assumptions you make, and move on. In this case you could write, the process Y is Gaussian, with the additional assumption that \epsilon_i is Gaussian the Z() process is Gaussian to.

Q1: Is there an error in "Fasit eksamen2015" - oppgave 1c?

A1: We prefer to call it an inaccuracy… Updated version is now available