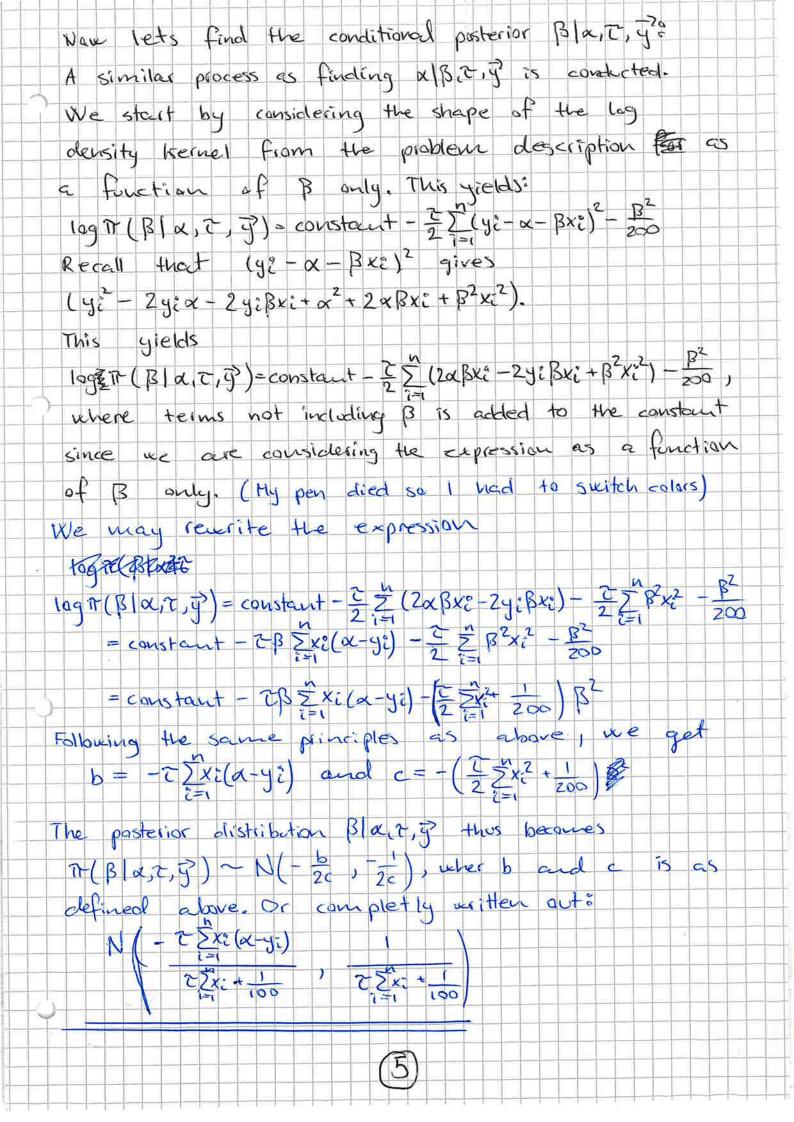




We many further write the expression as = caustant - $\frac{2}{2}$ + $\frac{2}{2}$ = $\frac{n}{2}$ (2 $\frac{3}{2}$ x - $\frac{2}{2}$ y) - $\frac{\alpha^2}{200}$ = constant - $2 \times \sum_{i=1}^{n} (\beta x_i^2 - y_i^2) - (\frac{2n}{2} + \frac{1}{200}) x^2$ From lecture note "Harlior chain Mante Carlo, part 3", we know that $\log p(x) = a + bx + cx^2 \Rightarrow x \sim N(-\frac{b}{2c}, -\frac{1}{2c})$ Thus, we get that $b = -7 \sum_{i=1}^{\infty} (\beta x_i - y_i) \text{ and } c = -\left(\frac{7n}{2} + \frac{1}{2\infty}\right)$ And the posterior distribution x | B, 2, y thes becomes $\pi(\alpha(\beta, \gamma, \gamma)) \sim N(-\frac{b}{2c}, -\frac{1}{2c})$, where b and c is as defined above. Or completly written aut: N(-22 (Bx2-7)2 1)



Source as used in the .R file

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