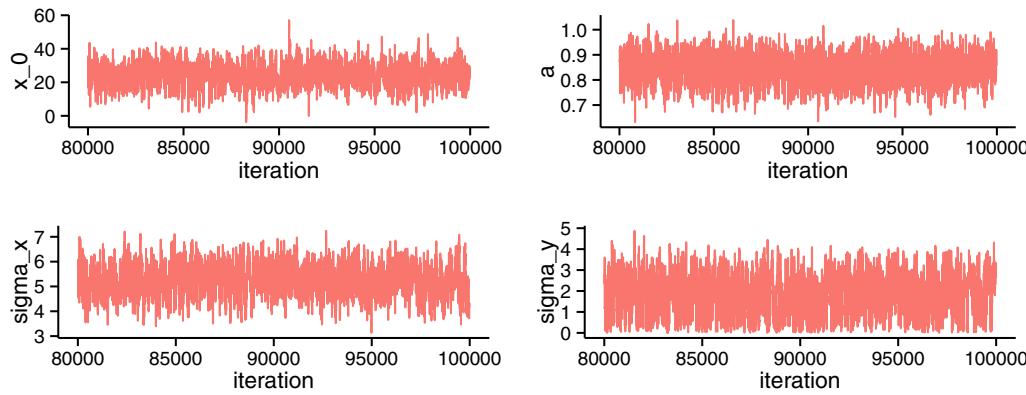
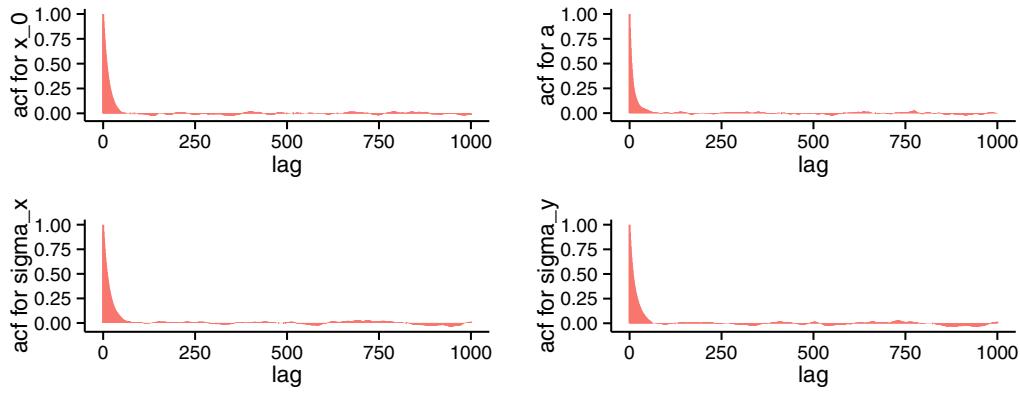


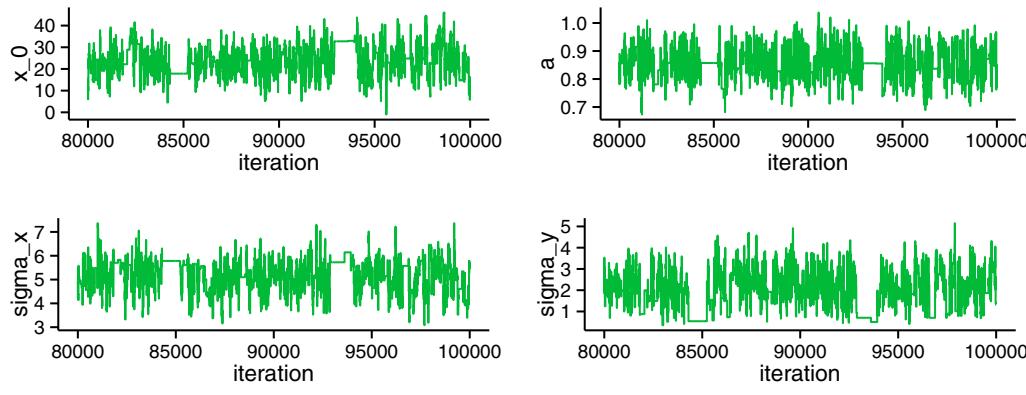
## Online Appendix 2



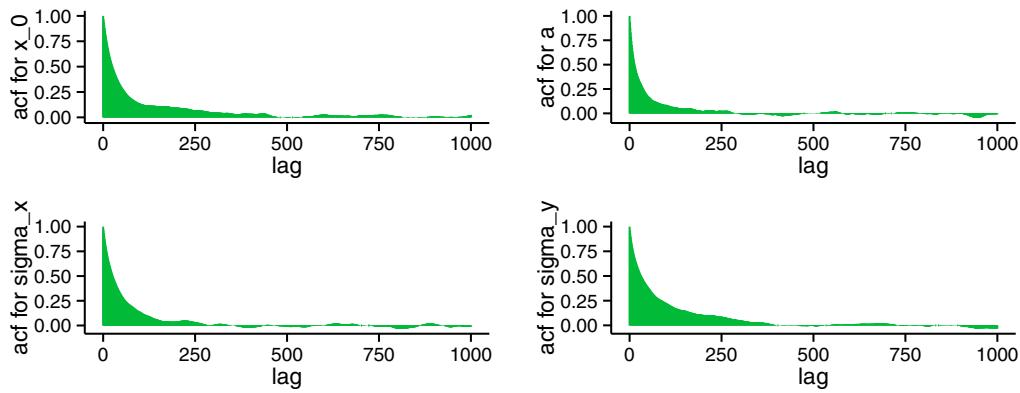
**Fig. 8** Last 20,000 iterations of the marginal algorithm for the 4 parameters. The mean acceptance probability was 0.256



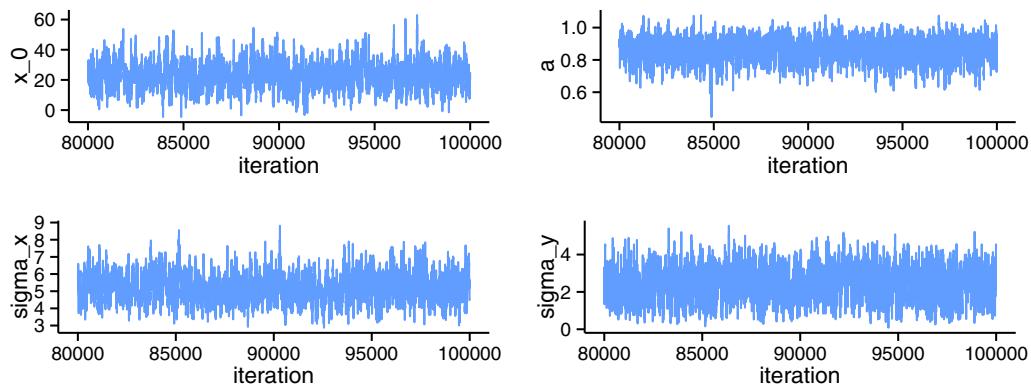
**Fig. 9** Estimated autocorrelation function of the corresponding marginal chain for the 4 parameters



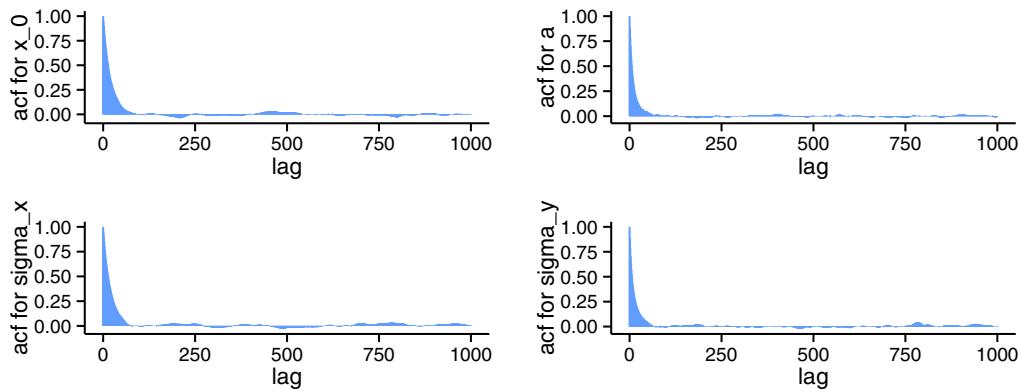
**Fig. 10** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 250$ . The mean acceptance probability was 0.104



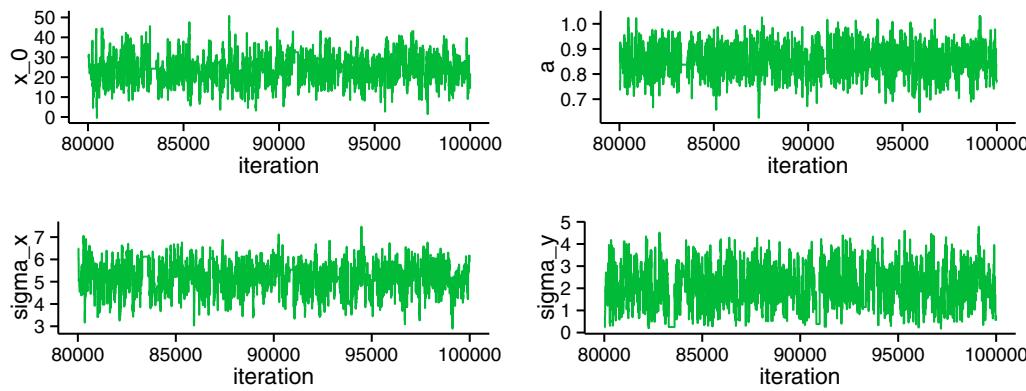
**Fig. 11** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 250$



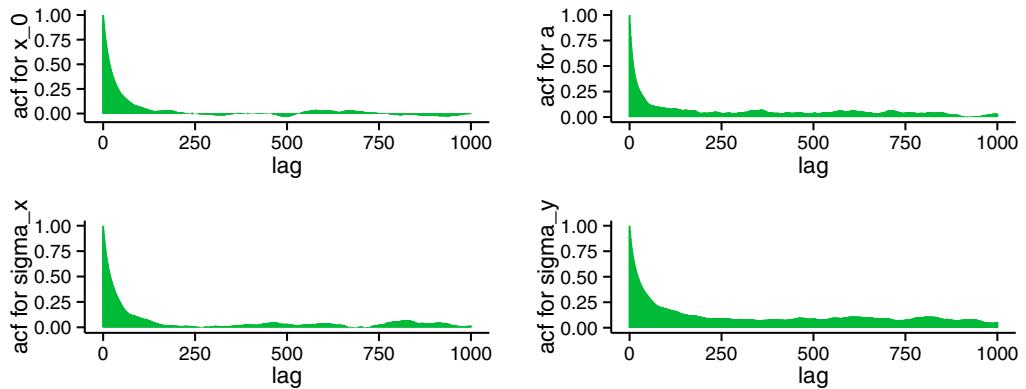
**Fig. 12** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 250$ . The mean acceptance probability was 0.283



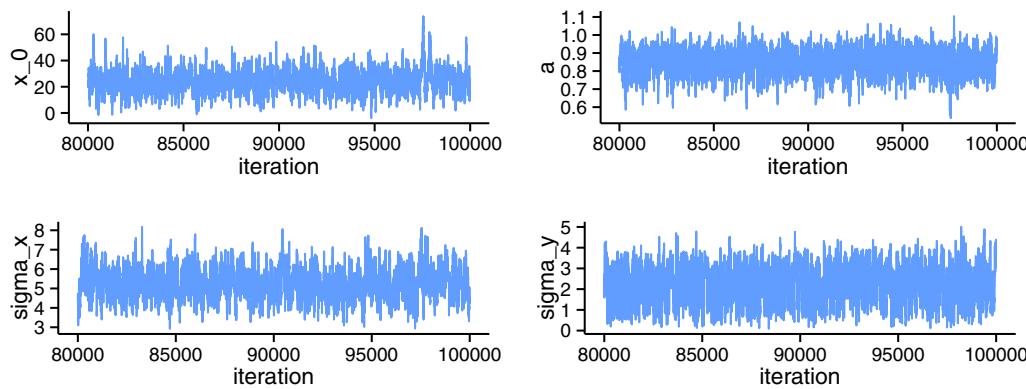
**Fig. 13** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 250$



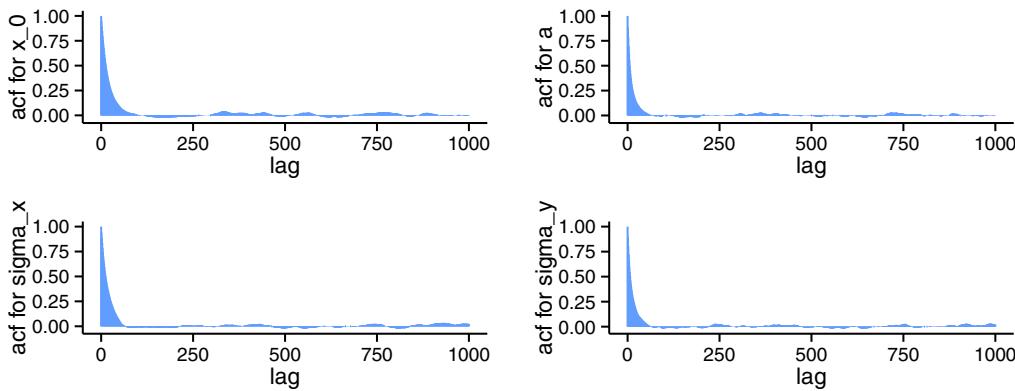
**Fig. 14** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 500$ . The mean acceptance probability was 0.147



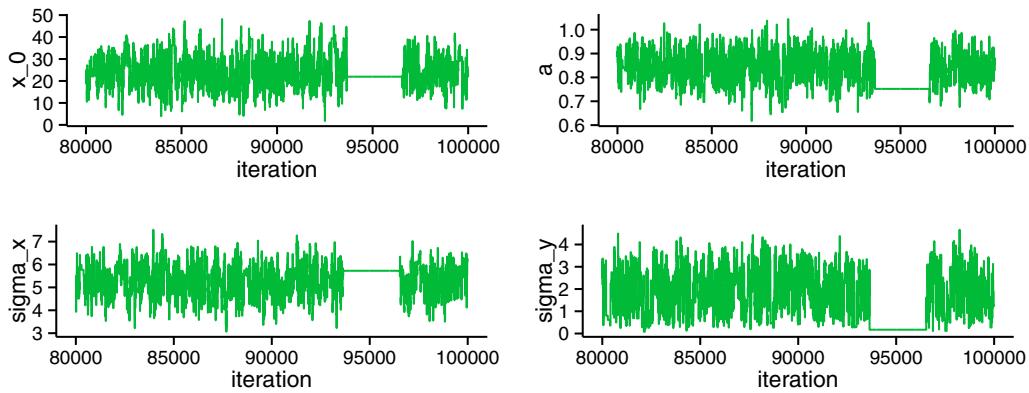
**Fig. 15** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 500$



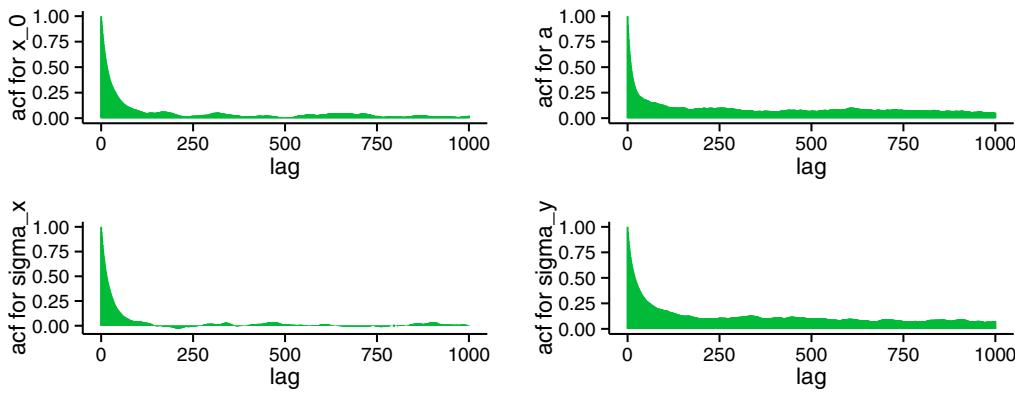
**Fig. 16** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 500$ . The mean acceptance probability was 0.275



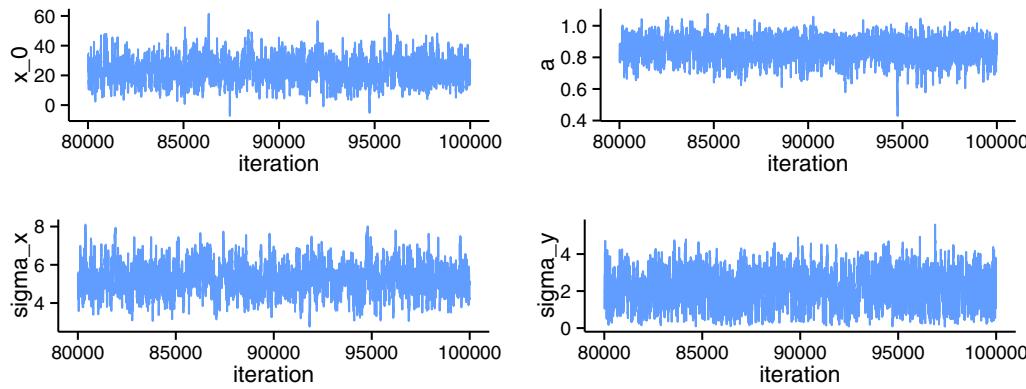
**Fig. 17** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 500$



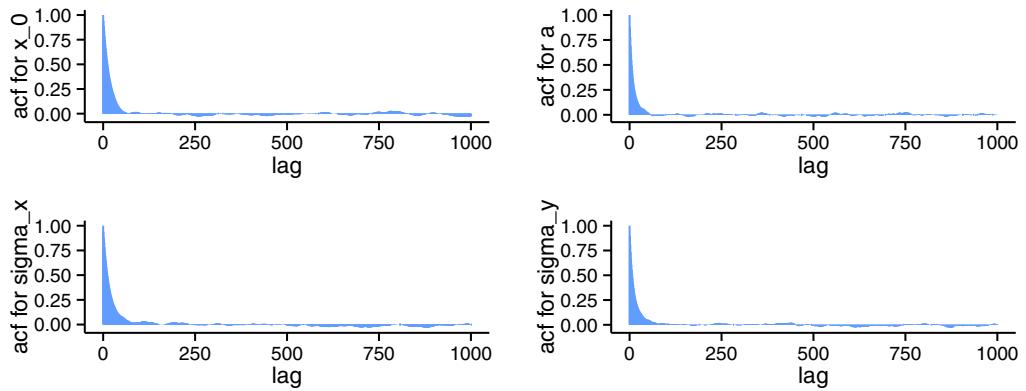
**Fig. 18** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 750$ . The mean acceptance probability was 0.166



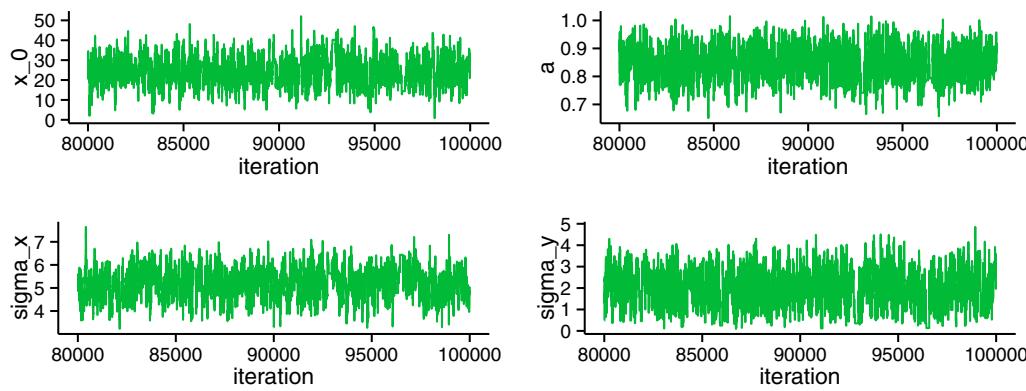
**Fig. 19** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 750$



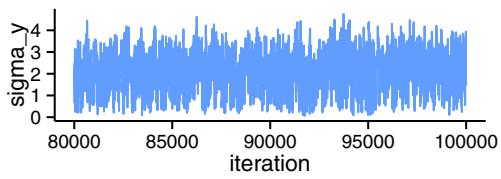
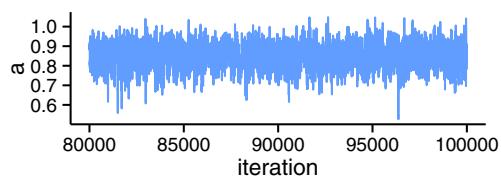
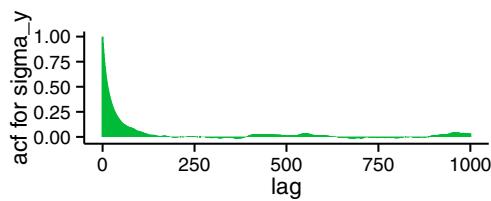
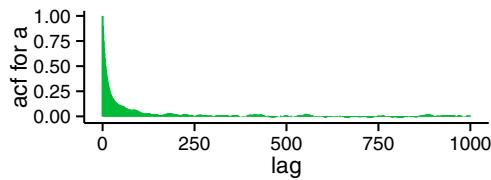
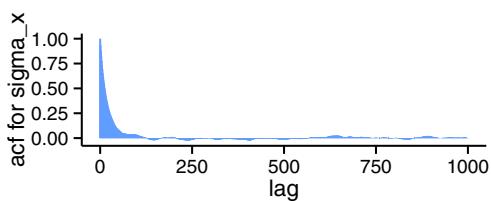
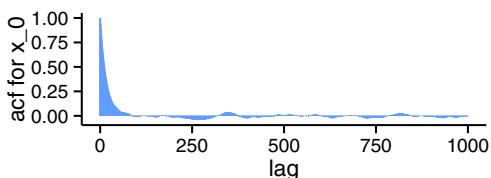
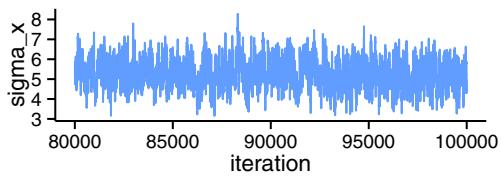
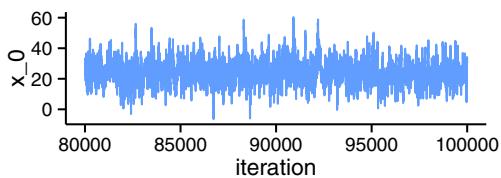
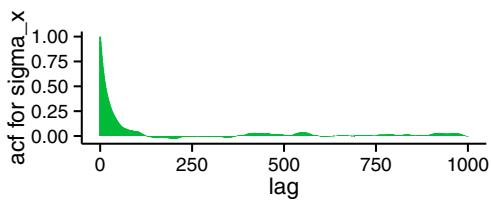
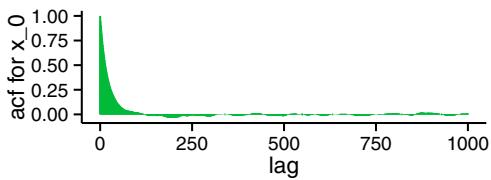
**Fig. 20** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 750$ . The mean acceptance probability was 0.273



**Fig. 21** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 750$



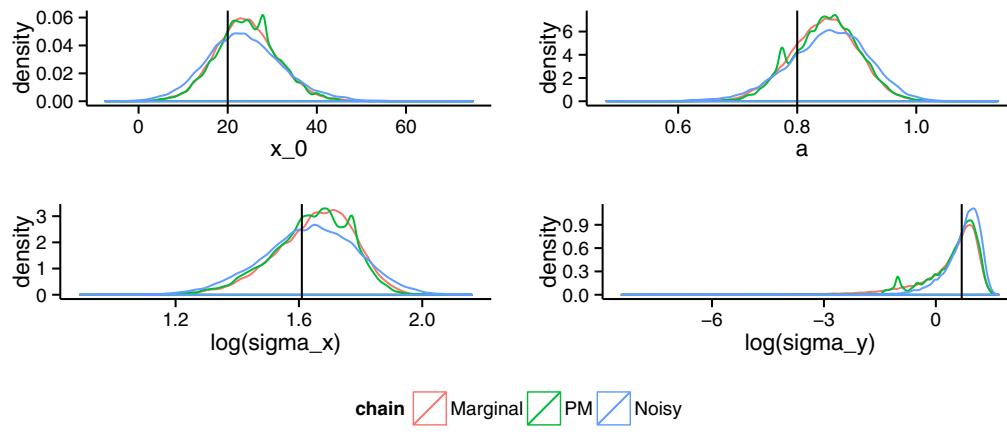
**Fig. 22** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 1,000$ . The mean acceptance probability was 0.186



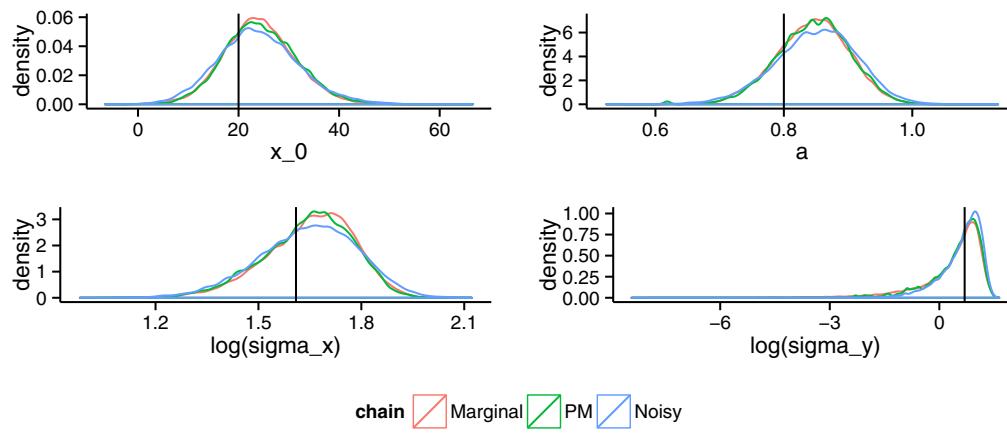
**Fig. 23** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 1,000$

**Fig. 24** Last 20,000 iterations of the pseudo-marginal algorithm for the 4 parameters when  $N = 1,000$ . The mean acceptance probability was 0.272

**Fig. 25** Estimated autocorrelation function of the corresponding pseudo-marginal chain for the 4 parameters when  $N = 1,000$



**Fig. 26** Estimated densities using the marginal, pseudo-marginal and noisy chains for the 4 parameters when  $N = 500$ . Vertical lines indicate the real values



**Fig. 27** Estimated densities using the marginal, pseudo-marginal and noisy chains for the 4 parameters when  $N = 1,000$ . Vertical lines indicate the real values