Equation (21) of the published paper [1] and Equation (4) of the supplementary material should read

$$J_{\tilde{\mathbf{p}}} = -\left(\frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L};\tilde{\mathbf{p}})}^{T} \frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L};\tilde{\mathbf{p}})}\right)^{-1} \frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L};\tilde{\mathbf{p}})}^{T} \left(\frac{\partial \mathbf{W}}{\partial \mathbf{x}}\Big|_{(x_{1:L};\tilde{\mathbf{p}})} \odot \frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L};\mathbf{0})}\right)$$

instead of

$$J_{\tilde{\mathbf{p}}} = -\left(\frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L}; \tilde{\mathbf{p}})}^{T} \frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L}; \tilde{\mathbf{p}})}\right)^{-1} \left(\frac{\partial \mathbf{W}}{\partial \mathbf{x}}\Big|_{(x_{1:L}; \tilde{\mathbf{p}})} \odot \frac{\partial \mathbf{W}}{\partial \tilde{\mathbf{p}}}\Big|_{(\mathbf{x}_{1:L}; \mathbf{0})}\right).$$

Thanks to Nontas Antonakos for pointing out this typo.

References

[1] G. Papandreou and P. Maragos. Adaptive and constrained algorithms for inverse compositional active appearance model fitting. In *Proc. IEEE Int. Conf. on Comp. Vision and Pat. Rec. (CVPR)*, Anchorage, AK, June 2008.