

Original images



Global model (Bayesian classifier) [1]



Adapted Bayesian classifier [2]



Cheddad's method [3]



Yogarajah's adaptation [4]



Threshold hysteresis from seeds obtained using a local Gaussian model



Distance transform from high-probability seeds [5]



Distance transform from seeds obtained using the Yogarajah's method [4]



Distance transform from seeds obtained using a local Gaussian model (proposed method)



Fig. 1. Skin detection outcome using different methods (red: false positives; blue: false negatives; faded color: true negatives).

References

- [1] M. Jones and J. Rehg, "Statistical color models with application to skin detection," *Int. J. of Comp. Vision*, vol. 46, pp. 81–96, 2002.
- [2] M. Kawulok, "Dynamic skin detection in color images for sign language recognition," in *Proc. ICISP*, vol. 5099 of *LNCS*, pp. 112–119. Springer, 2008.
- [3] A. Cheddad, J. Condell, K. Curran, and P. Mc Kevitt, "A skin tone detection algorithm for an adaptive approach to steganography," *Signal Proc.*, vol. 89, no. 12, pp. 2465–2478, 2009.
- [4] P. Yogarajah, J. Condell, K. Curran, A. Cheddad, and P. McKeVitt, "A dynamic threshold approach for skin segmentation in color images," in *Proc. IEEE ICIP*, 2010, pp. 2225–2228.
- [5] M. Kawulok, "Fast propagation-based skin regions segmentation in color images," in *Proc. IEEE FG*, 2013.