

Erratum to “Nonlinear Unmixing of Hyperspectral Images Using a Generalized Bilinear Model”

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I. CORRECTIONS

There was a mistake in the results of the FCLS algorithm in Section VII, Tables II and III of [1]. The corrected results are given in Tables I and II below. The new results are a slightly better than those obtained by the Bayesian algorithm for linear model. The conclusions of [1] remain valid since the GBM provide good results for the four images.

TABLE I

UNMIXING ALGORITHM PERFORMANCES WITH ACTUAL AND ESTIMATED ENDMEMBERS (1ST AND 2ND SCENARIOS): RE AND SAM.

	1st scenario								2nd scenario							
	RE ($\times 10^{-2}$)				SAM ($\times 10^{-2}$)				RE ($\times 10^{-2}$)				SAM ($\times 10^{-2}$)			
	LMM		FM	GBM	LMM		FM	GBM	LMM		FM	GBM	LMM		FM	GBM
	Bay	FCLS			Bay	FCLS			Bay	FCLS			Bay	FCLS		
I_1	5.48	5.48	5.75	5.48	15.55	18.68	16.12	15.56	6.39	5.62	7.04	5.64	12.59	11.57	12.45	11.57
I_2	6.81	5.86	5.44	5.57	15.55	16.76	13.93	14.08	6.95	5.64	6.22	5.52	12.97	11.46	12.19	11.39
I_3	6.01	5.60	5.55	5.50	15.40	17.39	14.87	14.75	6.93	5.93	7.37	6.00	13.65	12.10	12.82	12.05
I_4	5.81	5.56	5.65	5.51	15.49	17.68	15.42	15.11	7.19	5.84	6.84	5.85	14.57	12.53	12.84	12.31

TABLE II
UNMIXING ALGORITHM PERFORMANCES WITH ACTUAL ENDMEMBERS (1ST SCENARIO): RMSE.

	Distance between abundances ($\times 10^{-2}$)			
	LMM		FM	GBM
	Bay	FCLS		
I_1	0.99	0.98	12.93	1.86
I_2	15.82	13.49	0.80	7.73
I_3	9.52	7.79	6.89	4.02
I_4	7.31	6.01	9.74	3.42

REFERENCES

- [1] A. Halimi, Y. Altmann, N. Dobigeon, and J.-Y. Tournet, "Nonlinear unmixing of hyperspectral images using a generalized bilinear model," *IEEE Trans. Geosci. and Remote Sensing*, vol. 49, no. 11, pp. 4153–4162, Nov 2011.