

Time-lapse hyperspectral radiance data for the scene Nogueiró
Foster et al., *Vision Research*, 2015, <http://dx.doi.org/10.1016/j.visres.2015.03.012>

Location name	Nogueiró, Braga, Portugal
Scene description	Distant view of a parish of Braga, with houses and vegetation.
Geographic reference points	Church at top left of the image Approx. latitude Approx. longitude 41.550460° -8.389186°
	Camera Approx. latitude Approx. longitude 41.560723° -8.397519°
Date of acquisition	9 June 2003
Times of acquisition	11:40, 12:40, 13:45, 14:41, 16:00, 16:37, 17:45, 18:45, 19:41
Viewing geometry	Visual angle of scene from camera: 6.9° × 5.3°
	Distance of Church at top left from camera: approx. 1.3 km
Matlab Files	Nogueiro_1140.mat, _1240.mat, _1345.mat, _1441.mat, _1600.mat, _1637.mat, _1745.mat, _1845.mat, and _1941.mat
BMP Files	Nogueiro_1140.bmp, _1240.bmp, _1345.bmp, _1441.bmp, _1600.bmp, _1637.bmp, _1745.bmp, _1845.bmp, and _1941.bmp. All are unedited.
How to load data	In Matlab, if hyperspectral image files are in your working directory, then Matlab command >> load ('Nogueiro_1140.mat') loads hyperspectral image data into memory with name 'hsi', same for every scene
What the data represent	Array 'hsi' has size 1024 × 1344 × 33. It represents a set of 33 greyscale images of size 1344 (H) × 1024 (V) pixels sampled at wavelengths 400, 410, ..., 720 nm, with each pixel value representing spectral radiance in $W m^{-2} sr^{-1} nm^{-1}$
Postprocessing	See Section 2.2. <i>Image processing</i> , in Foster, D.H., Amano, K., & Nascimento, S.M.C. (2015). <i>Vision Research</i> , http://dx.doi.org/10.1016/j.visres.2015.03.012 .
Notes	The Munsell reference surfaces can be seen as a narrow strip on the right-hand side of the scene. The thin black or coloured edges present in some images are the result of multiple hyperspectral image registrations, mainly over time.
More details	See Foster, D.H., Amano, K., & Nascimento, S.M.C. (2015), <i>Vision Research</i> , http://dx.doi.org/10.1016/j.visres.2015.03.012 .
Usage and citation	These data are for personal use only. If you use these hyperspectral images or the colour images rendered from them in any published work arising from these data, please cite the source publication in full: Foster, D.H., Amano, K., & Nascimento, S.M.C. (2015). Time-lapse ratios of cone excitations in natural scenes. <i>Vision Research</i> , http://dx.doi.org/10.1016/j.visres.2015.03.012 .
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