

Errata for *Practical Geolocation for Electronic Warfare using MATLAB*

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1. On page 39, the code for generating the error ellipse computes the 90% error ellipse (the final argument in the function call is **90**), but the figure on page 40, Figure 2.10, shows the 50% error ellipse. The correct figure 2.10 appears below; note that now all of the estimated target positions fall within the error ellipse. The text referencing this should refer to a semi-major axis of 800 m, not 400 m, for the error ellipse.

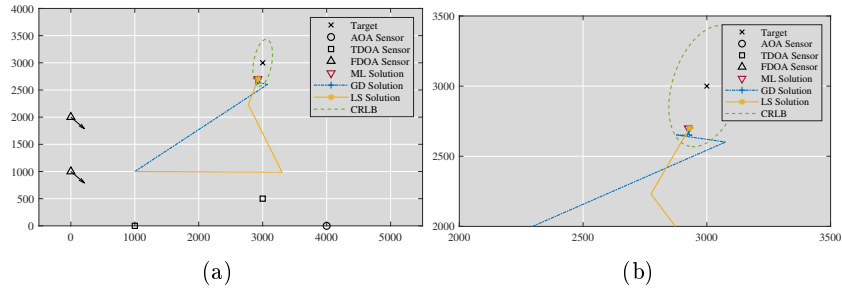


Figure 2.10: Plot of geolocation solutions overlaid with 90% error ellipse drawn from the Cramér-Rao lower bound for Example 2.3. (a) Full scenario, and (b) close look at target area.

2. On page 60, Figure 3.7 was erroneously generated by computing the RMSE (trace of the CRLB), rather than the CEP50, as was reported in the text and the code snippet.

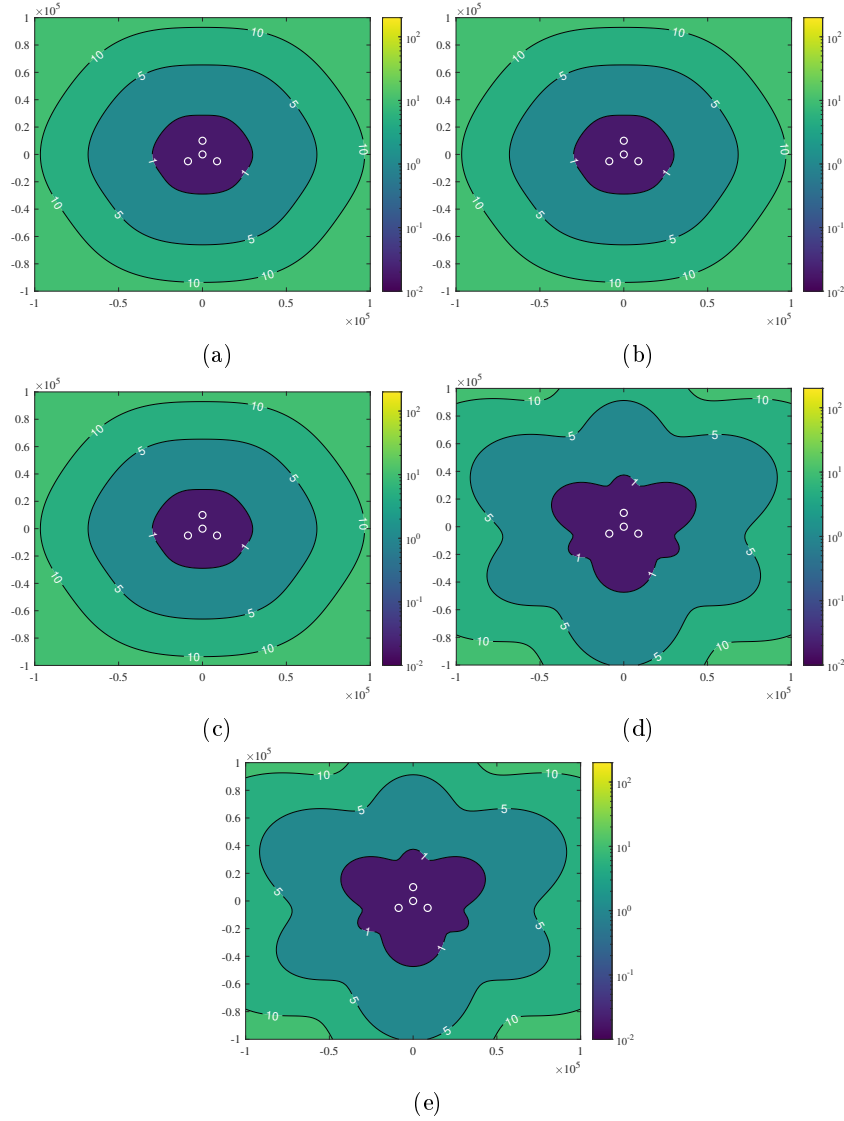


Figure 3.7: TDOA geolocation CEP50 [km] for Example 3.2 with different sensor pairs, based on the CRLB. (a) Sensor 1 as common reference, (b) sensor 2 as common reference, (c) sensor 3 as common reference, (d) sensor 4 as common reference, and (e) full measurement set.

3. On page 92, the data plotted in Figure 4.12 (and in the linked video from Figure 4.13), should be transposed. The repository has been updated. The figure should be:

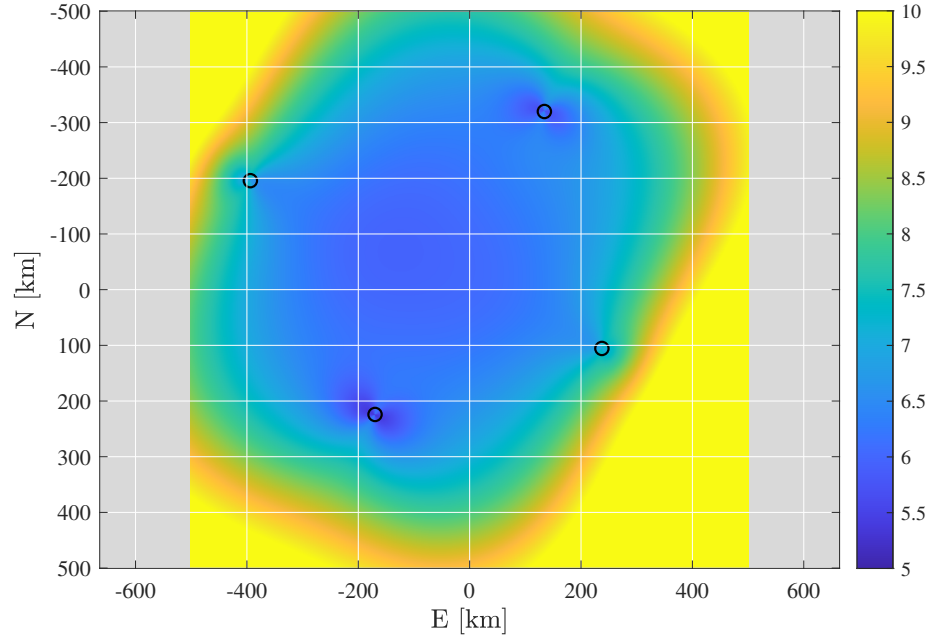


Figure 4.12: RMSE [km] computed from the CRLB for the $500 \text{ km} \times 500 \text{ km}$ region defined in Example 4.2, in ENU coordinates (east-north shown, up not plotted). Note that the satellites (x) are 500 km above the plane where the CRLB is calculated.

4. *On page 133, figure 6.1 was drawn with a bug in the code; only the first bias term (+5 deg) was used for all three sensors. The repository has been updated, and the corrected figure is:*

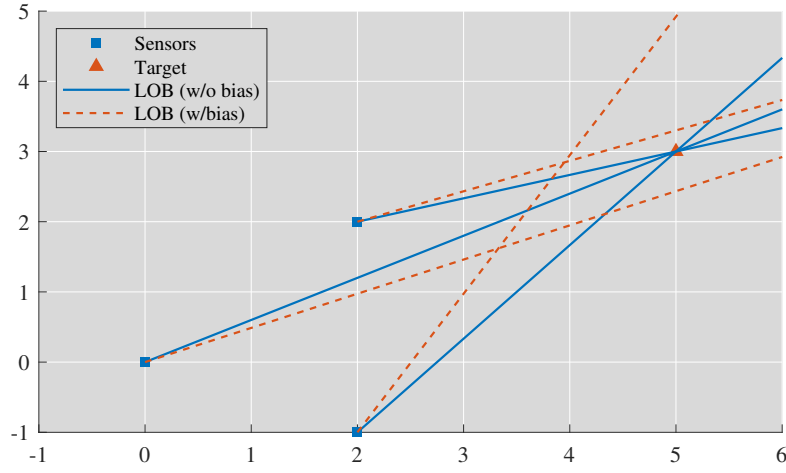


Figure 6.1: DF case with bias, from Example 6.1.

5. On page 190, following equation (7.20), a citation was improperly parsed. It is displayed as **10.1016/S0165-1684(03)00042-2**, which is the digital object identifier. The paper being cited is:

Branko Ristic and M. Sanjeev Arulampalam, "Tracking a Manoeuvring Target Using Angle-Only Measurements: Algorithms and Performance," *Signal Processing*, vol. 83, number 6, June 2003, DOI: 10.1016/S0165-1684(03)00042-2.