



SDI Review Form 1.6

Journal Name:	<u>British Journal of Mathematics & Computer Science</u>
Manuscript Number:	2013_BJMCS_6016
Title of the Manuscript:	Fitting quadratic curves to data points
Type of the Article	Research Paper

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	P1. Abstract must mention the conclusions relevant to the performance of minimization algorithms. P7. Figure 2 needs to be larger. P36. we have run a numerical experiment with (is one numerical experiment enough to draw conclusions? If yes, explain why). P37. Clarify: All the methods were initialized by randomly generated ellipses. (Where the randomly generated ellipses the same for each method? i.e., did all the methods use the same set of initial values?) P37. Clarify: In those cases where our algorithms converged, the GGS method took 60 iterations, on the average, the LMG took 20 iterations, and both LMA and TRA took 16 iterations. (Please provide computing time and machine architecture).	Conclusions added to abstract. Figure enlarged. Our experiment is just for illustrative purposes. This is now mentioned in the text. Clarified. See the text. Clarified. See the text.
<u>Minor</u> REVISION comments	P4. Rephrase: They correspond to "quadratic equations" $1 = 0$ and $-1 = 0$ that have no solutions, either real or complex. P4. Rephrase: but its has a certain meaning (and name) in complex coordinates, P6. M-dash: requires two parameters - its x and y coordinates P6. M-dash: needs three parameters - one (common) slope P6. M-dash: five geometric parameters - the coordinates of its center, P7: Latex formula: $AD = 4$ P9. Explain: the hyperbola with positive center ransforms	done done done (with LaTeX \textemdash command) done done done we believe Figure 4 is self-explanatory. The



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	into a pair of interesting lines and then into a hyperbola with negative center (How interesting?) P18. Format: in Figure 9, axes D and E should be <i>D</i> and <i>E</i>. P20. Change color green so that H^+ and H^- can be read more easily. P26. Figure 15 is not clear enough (too faded). P27. Figure 16 is not clear enough (too faded). P32. Explain: this choice causes a severe singularity that affect the first step (How severe?) P34. Typo: as those would keep grow indefinitely P35. M-dash: to hyperbolas – there is no direct P38. Figure 19 is not clear enough (too faded). P39. Figure 20 is not clear enough (too faded).	interest to this issue comes from our attempts to understand the structure of the main domains in the parameter space done color changed to a lighter green Figure redrawn with a different graphics editor Figure redrawn with a different graphics editor We removed the word “severe”. corrected done Figure redrawn with a different graphics editor Figure redrawn with a different graphics editor
<u>Optional/General</u> comments	The manuscript is very well written and the mathematical formulation is sound.	We thank the referee for these kind comments.