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SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	**Advances in Research**
Manuscript Number:	**2014_AIR_11388**
Title of the Manuscript:	**Crack-growth on canvas paintings during transport simulation monitored with digital holographic speckle interferometry**
Type of the Article	**Original Research Article**

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	**Authors' response to final evaluator's comments**
Authors have made a good effort in addressing all the points in my previous comments. The paper has improved quite significantly and it is now clearer. Some points: **1- My first comment about the objective has been clarified in the author's response. However, I just wanted to state that it may be a bit obscure to the reader, just in case the authors might want to clarify it in the paper.** **2- About my comment regarding fitting the data to the function y=exp (a+bx+cx^2) of course I understand why fitting experimental data to math functions is done. And now I understand that the exponential growth is important per se, which seems to be a major finding in the investigation. My comment was regarding two aspects of this particular fit: first the variation between results, explained to the different test cases, of course, but also I have some concerns about the variable x. In the first case, it is just an iteration cycle, when each cycle not only accumulates to the previous effects but also vary on the applied stress. I understand why this is done, but it brings me to the second aspect: the function itself. Why choosing the exponential of a 2nd degree polynomial? Does it have any physical significance? I doubt it due to the nature of the x variable.** **For instance a quick MATLAB fit gives these results with a completely different exponential function (the default used)** **General model Exp1:** **f(x) = a*exp(b*x)** **Coefficients (with 95% confidence bounds):** **a = 0.04105 (0.01666, 0.06544)** **b = 0.5499 (0.4876, 0.6121)** **Goodness of fit:** **SSE: 0.3093** **R-square: 0.9959** **Adjusted R-square: 0.9951** **RMSE: 0.2487** **That is why I asked, but it is not a major concern anyway. I am sure the authors have a good reason for choosing this function, just suggested they might want to explain it.** **3- About the real-time application the author's response states that the information is obtained during the vibration cycle. Well, I was confused because in lines 173-174 and table 1 it seems to indicate they are acquired *after* the**	

vibration cycle. But anyway as I could not find the acquisition speed of the 5 frame set, I wondered if, for instance, high frequency vibrations could not alter the measurements significantly, as usually is the case in these techniques. But I understand the research is not yet at this point. I was just curious. **4- I found what seem to be some small typos the authors may want to correct. In line 94, for instance, I guess the authors mean ½ lambda of the laser wavelength, not lambda. Also in figure 1 Uo and Ur do not appear as such on the schema (o and U), and what L is, is not specified. In figure 8 the legend marks one curve as B (which is not given, but is clearly the number of generated cracks) and "Polynomial Fit of Book4_B", which I don't know what it is.** **5- English grammar and writing has been improved, but I'd advise that a native speaker checks the paper for mistakes and some sentence re-writing for clarity.** **Anyway the paper has been improved and with some minor changes here and there, is now publishable.**	

Note: Anonymous Reviewer