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| Title:                  | Naive $A_1$ -Homotopies on Ruled Surfaces   |
| Authors:                | Balwe, Chetan (/jspui/browse?type=author&value=Balwe%2C+Chetan)<br>Sawant, Anand (/jspui/browse?type=author&value=Sawant%2C+Anand)  |
| Keywords:               | Naive<br>$A_1$ -Homotopies<br>Ruled<br>Surfaces   |
| Issue Date:             | 2021  |
| Publisher:              | Oxford Academic   |
| Citation:               | International Mathematics Research Notices, 1–21.   |
| Abstract:               | We explicitly describe the $A_1$ -chain homotopy classes of morphisms from a smooth henselian local scheme into a smooth projective surface, which is birationally ruled over a curve of genus $>0$ . We consequently determine the sheaf of naive $A_1$ -connected components of such a surface and show that it does not agree with the sheaf of its genuine $A_1$ -connected components when the surface is not a minimal model. However, the sections of the sheaves of both naive and genuine $A_1$ -connected components over schemes of dimension $\leq 1$ agree. As a consequence, we show that the Morel–Voevodsky singular construction on a smooth projective surface, which is birationally ruled over a curve of genus $>0$ , is not $A_1$ -local if the surface is not a minimal model. |
| Description:            | Only IISER Mohali authors are available in the record.  |
| URI:                    | <a href="https://doi.org/10.1093/imrn/rnab162">https://doi.org/10.1093/imrn/rnab162</a> ( <a href="https://doi.org/10.1093/imrn/rnab162">https://doi.org/10.1093/imrn/rnab162</a> )<br><a href="http://hdl.handle.net/123456789/5172">http://hdl.handle.net/123456789/5172</a> ( <a href="http://hdl.handle.net/123456789/5172">http://hdl.handle.net/123456789/5172</a> )  |
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