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David Eisenbud <de@berkeley.edu>

Re: Practical Curves
1 message

David Eisenbud <de@berkeley.edu>   Wed, Nov 8, 2023 at 6:42 PM
To: Izzet Coskun <coskunizzet@gmail.com>
Cc: Joe Harris <harris@math.harvard.edu>

Dear Izzet,

Many thanks for the typos and the comments -- We are eager to hear of all such!
You can access a very recent draft on my web site (top corner)
eisenbud.io.github.com
Probably you should switch to that one.

Cordially,

David
--
David Eisenbud
Professor of Mathematics
University of California Berkeley
https://eisenbud.github.io/

On Wed, Nov 8, 2023 at 6:14 PM Izzet Coskun <coskunizzet@gmail.com> wrote:

> Dear Joe and David,
>
> I hope this email finds you well.
> I have been reading a draft of your book `Practical Curves'. I am enjoying it greatly. I don't know whether I have the latest version. Would you be interested in comments and any typos that I find? These might have already been corrected.
>
> Here is what I have for the first Chapter.
>
> middle of page 11, lead -> led
> page 19 -- we will regard F as a sheaf on Y (there is an extra on)
> page 24, line 4 -- define an effective Cartier divisor (instead of and)
> page 24, line 14,-- extra "be" in `is in general be Cartier'
> page 25, line 3 -- extra "is", it should be `in general, a rational function'
> page 25,26--In Hom for sheaf Hom, you might want to make H \mathcal{H}
> page 26, 5 lines from the bottom-- it should be `$\sigma \in H^0(L)$' (sentence suddenly ends at \sigma)
> page 29, line 20 -- shouldn't it be `$L(-D\_0)$' instead of $L(-D)$?
> page 30, line 8--You have a double period after well-defined
> page 31--You define the rational normal curve of degree d in Example 1.3.3 and use it in Corollary 1.4.2. You probably don't have to remind the reader of the definition half a page later. There are a few other notions (such as complete linear system) that get defined more than once in this chapter.
> page 31, sentence after corollary 1.4.3, do you want to add a period?
> page 33, line -6-- `days' should be `says' (note that this says ..)
>
>
> A general remark: I understand why you want to use schemes. However, using schemes so casually has the disadvantage that you will lose a portion of your potential audience, the students interested in Riemann surfaces but don't necessarily take an AG class or only take AG I. This struck me especially in your proof of 1.2.1. A student who does not know what a Cartier divisor is, is unlikely to know what flat is or that a nonconstant morphism of smooth projective curves is flat and that the Hilbert polynomial is preserved in a flat family. I am not sure I have an easy fix for this, maybe a precise reference to Hartshorne? Perhaps adding references to Shafarevich when available? I don't know whether it would help to briefly explain the complex analytic picture.

I am excited about this book. When I teach Riemann surfaces, in the second half of the course, I usually use ACGH. The students struggled with that. Next year I can use your new book instead!

Anyway, I'll try to read a chapter every day or two. If you are interested, I can continue sending you comments.

Best, Izzet