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Chapter 3

1 message

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To: David Eisenbud <de@berkeley.edu>, Joe Harris <harris@math.harvard.edu>

Dear Joe and David,

Here are some thoughts on chapter 3:

page 70, cheerful fact 3.1.3, you are not consistent in your spelling of L^u page 71, the definition of ϕ_d , do you want to add a comma ($s^d, s^{d-1}t, \dots, t^d$)?

page 72, proof of corollary 3.2.2. There are some strange black boxes here (possibly because there are overfull boxes?)

page 74, first sentence of rational normal curves are projectively homogeneous, too many automorphisms maybe 'the subgroup $G \subset \mathrm{PGL}_{d+1}$ of automorphisms of P^d ...'page 75, Your projective space is sometimes P^d , sometimes P^r and sometimes P^n . The rational normal curve of degree d was in P^d . In proposition 3.2.6, it is a rational normal curve of degree n in P^n .page 76, line 10, you might want to consider $\left(F_0/G, \dots \right)$ page 81, proof of 3.4.1, line 6. Missing a period at the end of sentence ending 'that is $r=p-q$ 'proof of 3.4.1, For $-r$, I would have thought you would take the line joining r and o and look at the other intersection point. I suppose taking the tangent line at r , works just as well. I might remark a little earlier that if p and q are the same, you are taking the tangent line at p .

page 82, section 3.5 seems to start with a period.

page 82, last line, do you want one of the invertible sheaves to be L ?page 83, line 10 of 3.8.3, do you want a period at the end of the sentence after $E = Q \cap Q'$?page 84, in Cheerful Fact 3.5.2, it might be better to write $g-1$ -planes as $(g-1)$ -planes

page 85, line 8 of section 3.6, the reference to Eisenbud1995 is broken

page 86, Example 3.6.2, there is an overfull black box and the second bullet point has a broken reference

page 86, Cheerful Fact 3.6.3, some of these statements could use a reference (such as the first bullet point), In the last sentence of the first bullet point, after you said 'In this sense' do you also need 'sort of'?

The second bullet point has some typos. You are missing a closing parenthesis in (since $\dots R_X$). Probably the next parenthesis should have been) instead of . There is a missing parenthesis in $H^0_*(O_C)$. There is a sentence fragment at the end of this bullet point and overfull box. This bullet point could also use a reference

Third bullet point has a broken reference and too much space before the parenthesis at the end?

page 87, proof of 3.6.4, At the end of the first paragraph, do you mean equivalence of 1 and 2 instead of 3? At the end of the third paragraph, do you mean the equivalence of 1 and 3?

You have defined projectively normal twice, once in Cheerful Fact 3.6.3 and again before 3.6.5.

page 88, there is a broken reference in Cheerful Fact 3.6.5.1

page 88, Exercise 3.7.3, mismatched parentheses

page 89, exercise 3.7.5, missing) in $F \in H^0(O_{P^r}(m))$

page 89, exercise 3.7.6, what is the hyperplane H ? You need a space between H . and Show

page 89, Exercise 3.7.11, extra on in `action on on`

page 90, line 3, an extra `as`

page 90, exercise 3.7.11, 1. has a mismatched parenthesis

page 91, exercise 3.7.14, mismatched parenthesis

page 91, exercise 3.7.15, the last sentence is only a fragment and the first word of the last sentence is misspelled.

Best, Izzet