



Ben Foster <foster@ucar.edu>

TIEGCM handbook typo?

5 messages

Alex T. Chartier <alex.chartier@jhuapl.edu>

Thu, Aug 6, 2015 at 5:46 PM

To: Ben Foster <foster@ucar.edu>

Cc: "<Ryan.Mcgranaghan@colorado.edu>" <Ryan.Mcgranaghan@colorado.edu>

Hi Ben,

On page 125 of the TIEGCM handbook, equations 6.13 and 6.16 have two terms of: $\sqrt{Ti + Te / 2}$. I believe the second terms (the ones preceded by log10) are typos and should be removed. The code does not have square roots in the log10 terms (lamdas.F line 164-165) :

```
rnu_o2p_o2(k,i) = 2.59E-11*sqrt(tnti(k,i))* ! O2+ ~ O2 (resonant)
| (1.-0.073*alog10(tnti(k,i)))*2

rnu_op_o (k,i) = 3.67e-11*sqrt(tnti(k,i))* ! O+ ~ O (resonant)
| (1.-0.064*alog10(tnti(k,i)))*2*colfac
```

Alex Chartier

Ryan Michael Mcgranaghan <Ryan.Mcgranaghan@colorado.edu>

Thu, Aug 6, 2015 at 5:48 PM

Reply-To: Ryan.Mcgranaghan@colorado.edu

To: "Alex T. Chartier" <alex.chartier@jhuapl.edu>

Cc: Ben Foster <foster@ucar.edu>

Hi Ben

Also, the handbook has the coefficient '0.73' for the first term, rather than the '0.073' shown in the source code. This is likely also a typo.

Best,

Ryan

[Quoted text hidden]

Ben Foster <foster@ucar.edu>

Sat, Aug 8, 2015 at 5:01 PM

To: Astrid Maute <maute@ucar.edu>

Astrid, is this in the Description?

Sent from my iPhone

Begin forwarded message:

From: "Alex T. Chartier" <alex.chartier@jhuapl.edu>**Date:** August 6, 2015 at 5:46:28 PM MDT**To:** Ben Foster <foster@ucar.edu>**Cc:** "<Ryan.Mcgranaghan@colorado.edu>" <Ryan.Mcgranaghan@colorado.edu>

Subject: TIEGCM handbook typo?

[Quoted text hidden]

Ben Foster <foster@ucar.edu>
To: Astrid Maute <maute@ucar.edu>

Sat, Aug 8, 2015 at 5:02 PM

Sent from my iPhone

Begin forwarded message:

From: Ryan Michael Mcgranaghan <Ryan.Mcgranaghan@Colorado.EDU>
Date: August 6, 2015 at 5:48:29 PM MDT
To: "Alex T. Chartier" <alex.chartier@jhuapl.edu>
Cc: Ben Foster <foster@ucar.edu>
Subject: Re: TIEGCM handbook typo?
Reply-To: Ryan.Mcgranaghan@Colorado.EDU

[Quoted text hidden]

Astrid Maute <maute@ucar.edu>
To: Ben Foster <foster@ucar.edu>

Sat, Aug 8, 2015 at 8:46 PM

Ben,

I will check it, and correct it.

Astrid

[Quoted text hidden]