

**Subject:** Re: Temperature distribution with LARES 2 emissivity of cavity very high (29%)  
**Date:** Thursday, February 15, 2018 at 1:11:53 PM Eastern Standard Time  
**From:** Reinhart  
**To:** Antonio Paolozzi, David Arnold  
**CC:** Ignazio Ciufolini, Erricos C. Pavlis, Ludwig Grunwaldt  
**Attachments:** Thermal\_test\_2018.pdf, Thermal\_test\_2018.pptx

Dear Antonio,

please find enclosed a first answer. Hopefully David gets similar results.

best

Reinhart

Am 15.02.2018 um 09:30 schrieb Antonio Paolozzi:

Dear Reinhart, Dear Dave,  
attached two cases for the floating mount of the new CCR.  
case 16) T body 140°C (limit case which cannot be, in fact because of  
the high emissivity satellite temperature lowers significantly  
case 17) Tbody 70°C (more realistic case, although we expect  
temperature lower than that)

Each case has two files one reporting the temperature distribution in  
Celsius and the other in Kelvin

Attached also an excel file summarizing the main input and output of  
each case. Column O and P concern the contact of the cylindrical part  
of the CCR or the back faces with the plastic rings respectively. LPR=  
lower plastic ring, UPR upper plastic ring, WAL wall cavity, RRR  
retainer ring.

Case 1 was very good. Looking at the gradients Case 16 does not look  
good, but the more realistic case 17 shows a lower axial gradient of  
case 1. So I expect from your analysis that case 17 is ok too. Let us  
see your results.

Thank you and best regards  
Antonio

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