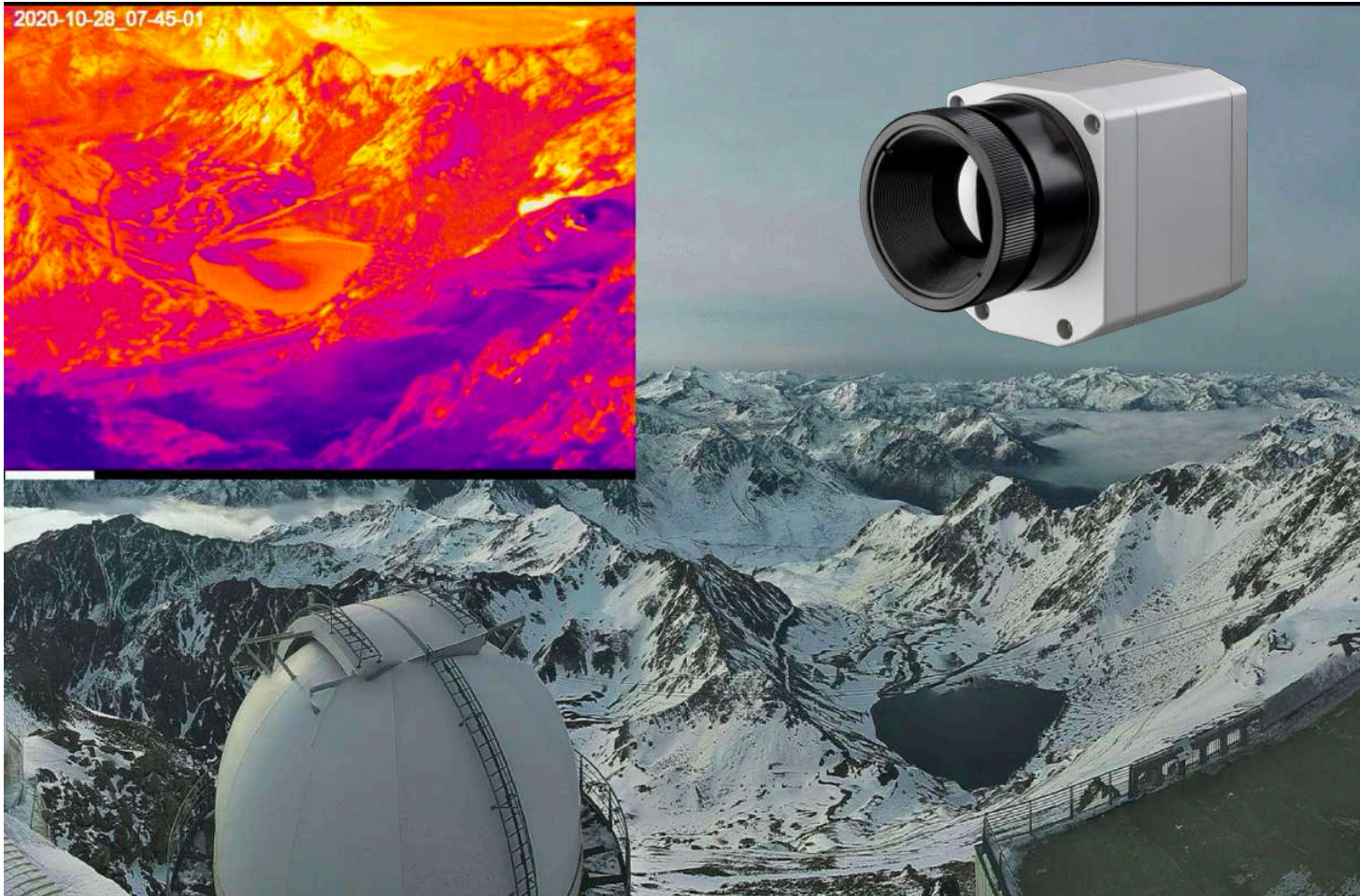


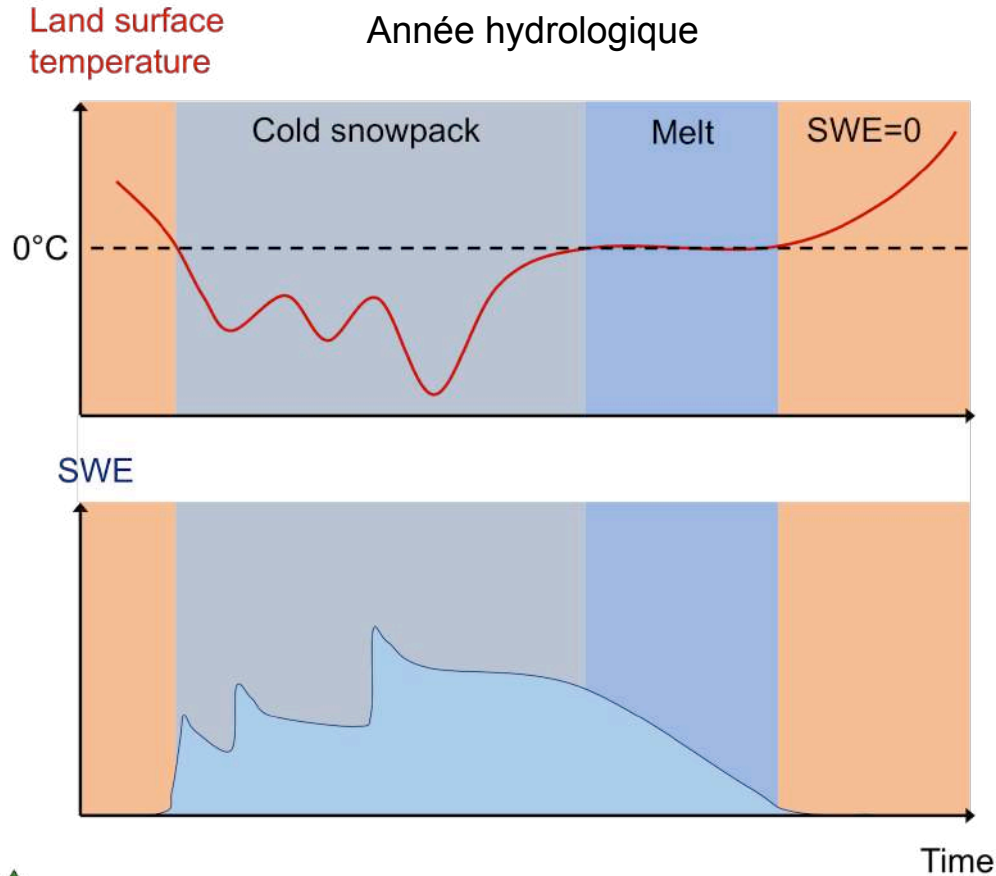
2020-10-28\_07-45-01



## Expérience PICTIR Simon Gascoin (CNRS/CESBIO)



# La température de surface permet d'améliorer la prévision de la fonte de la neige



Alonso-González E., Gascoin S., Arioli S., Picard G.:  
Exploring the potential of thermal infrared remote sensing to  
improve a snowpack model through an observing system  
simulation experiment, *The Cryosphere* <https://doi.org/10.5194/tc-17-3329-2023>.

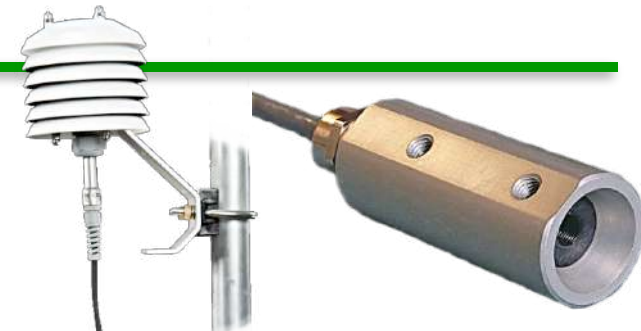


TRISHNA

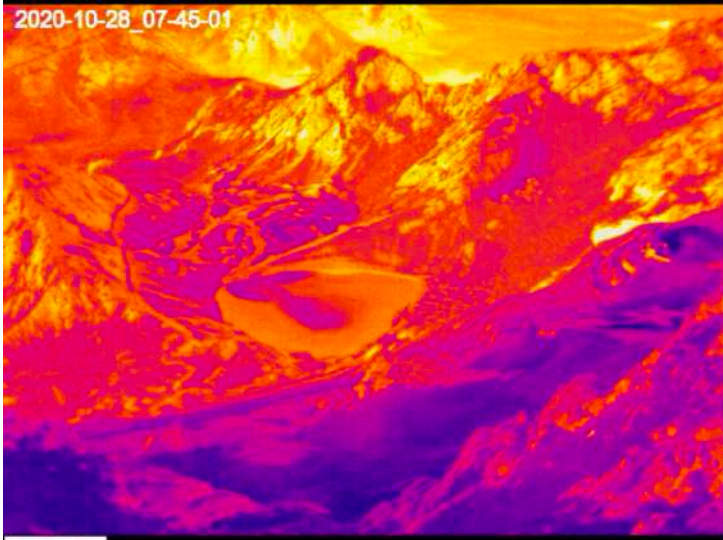


2020-10-26 06-00-00

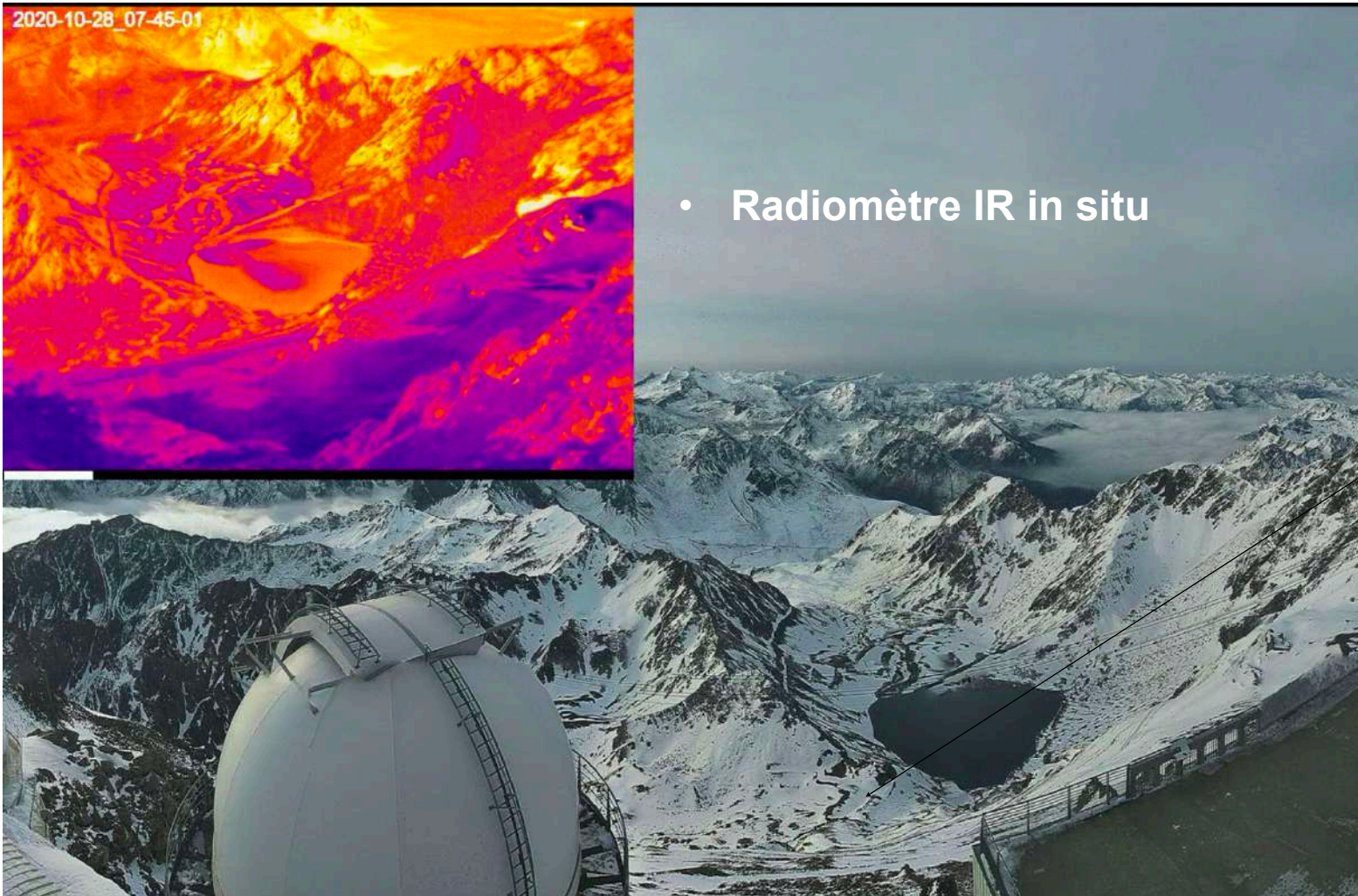




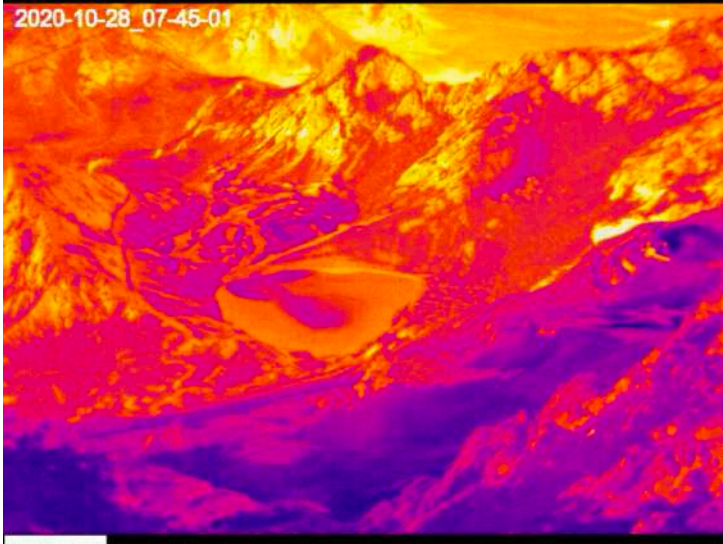
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- Radiomètre IR in situ



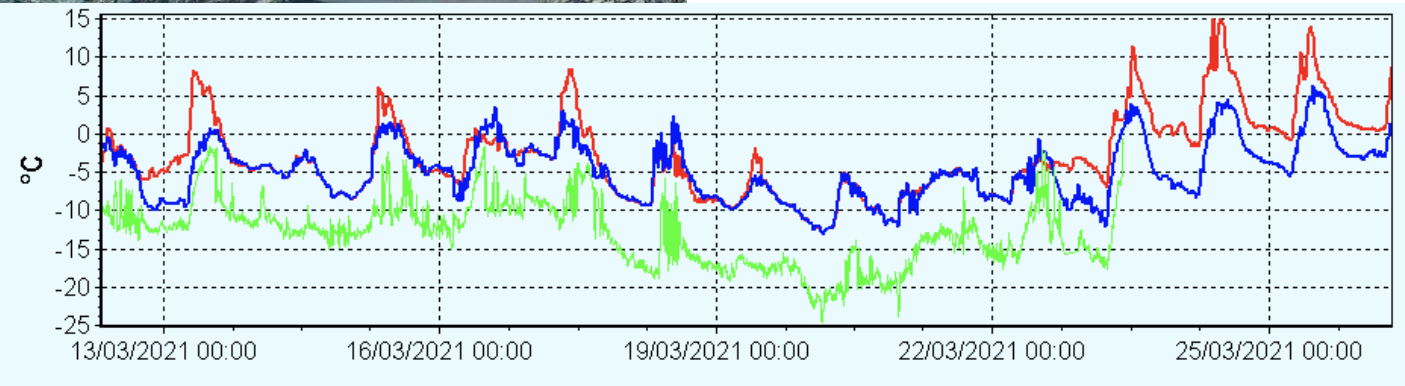
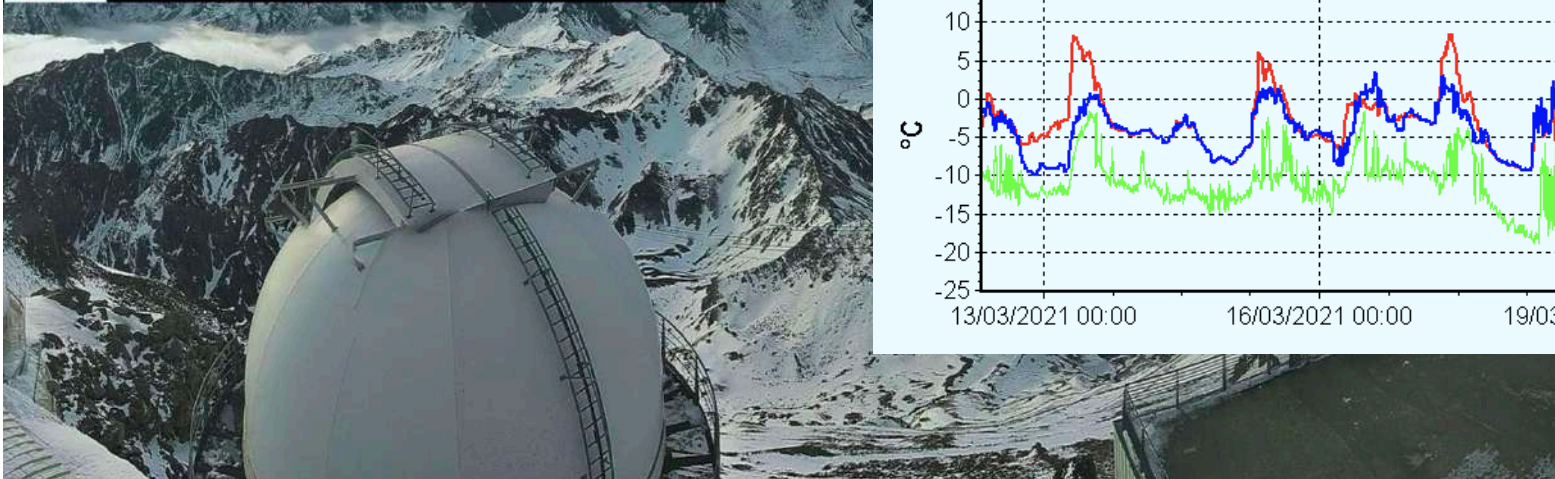
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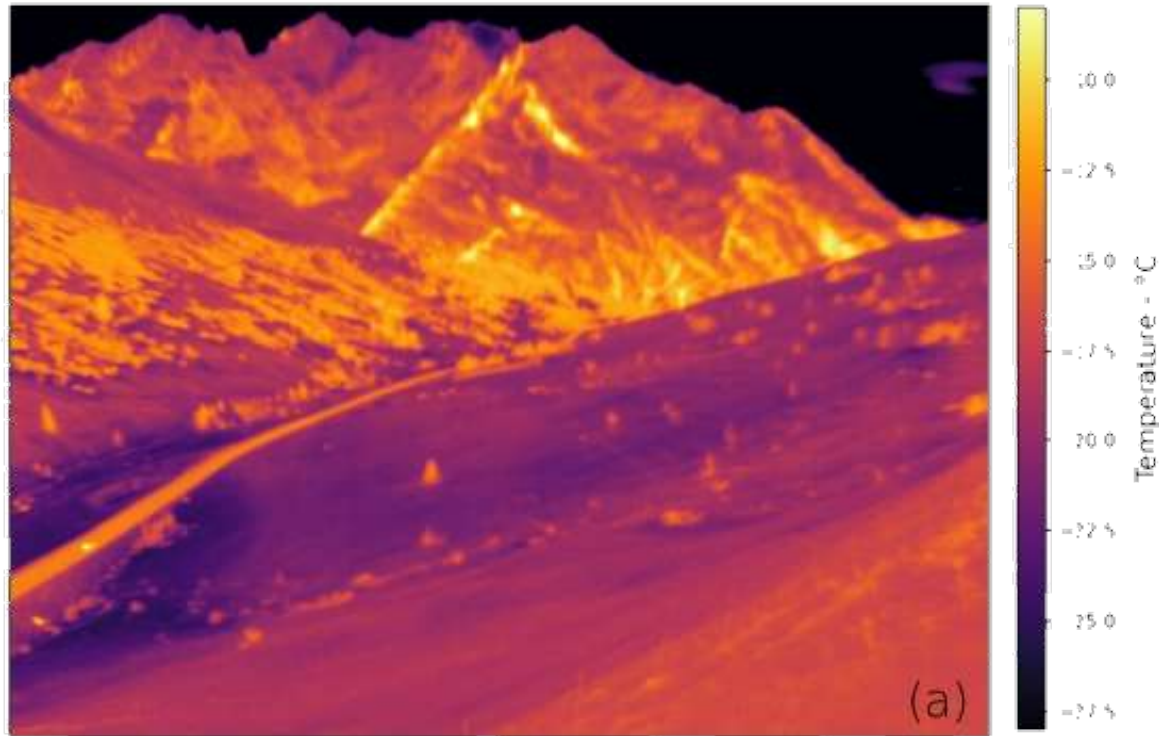
- Radiomètre IR in situ



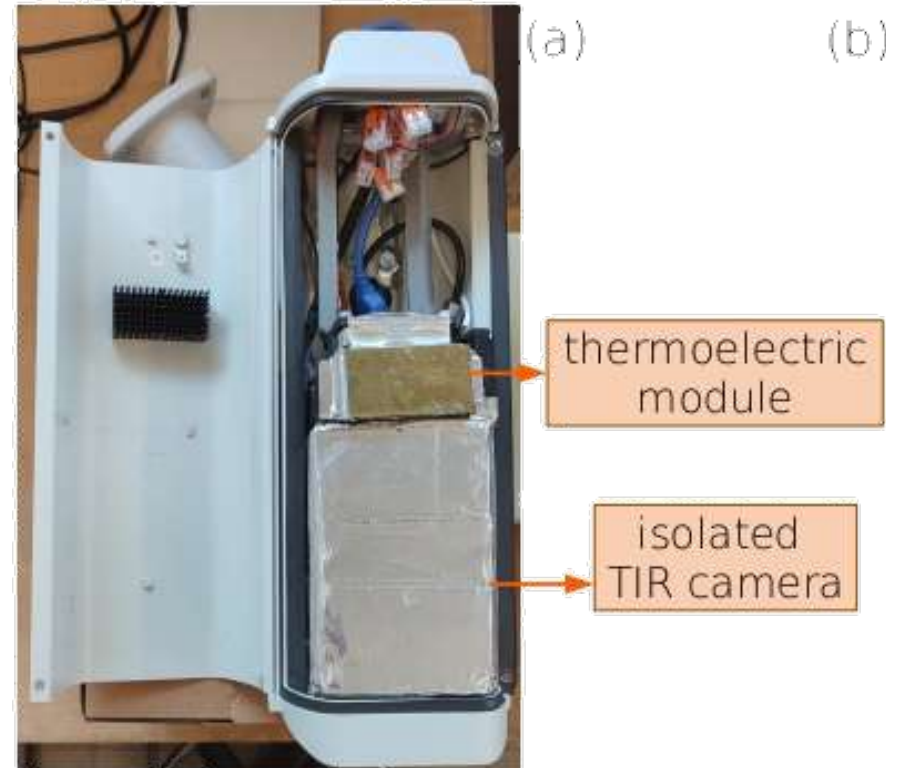
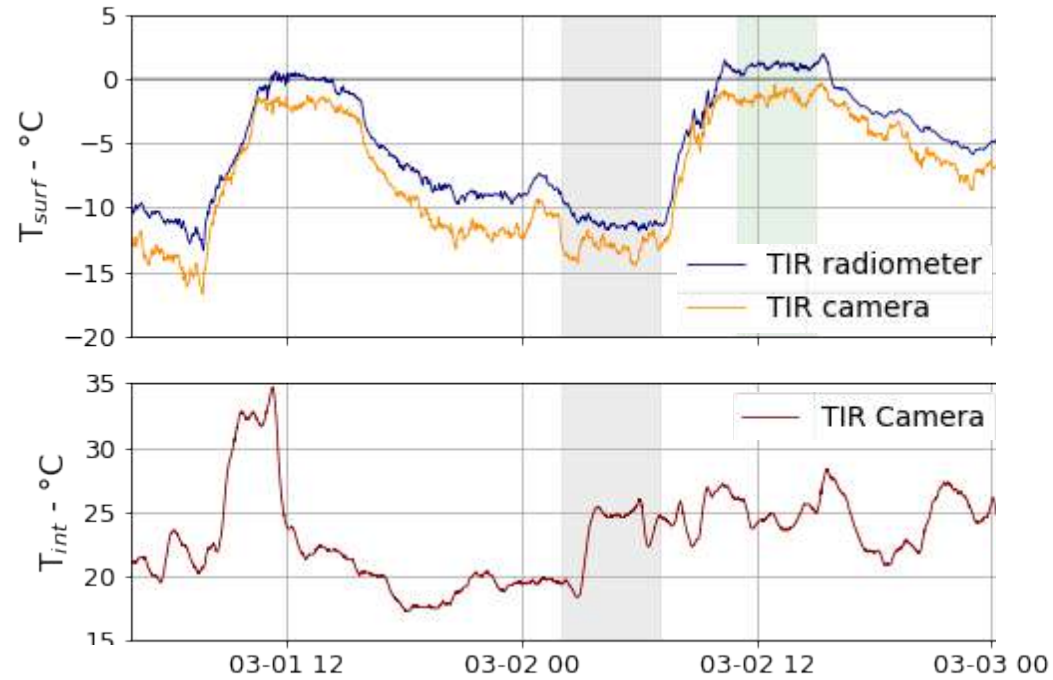
Biais 2-5 K



# Col du Lautaret



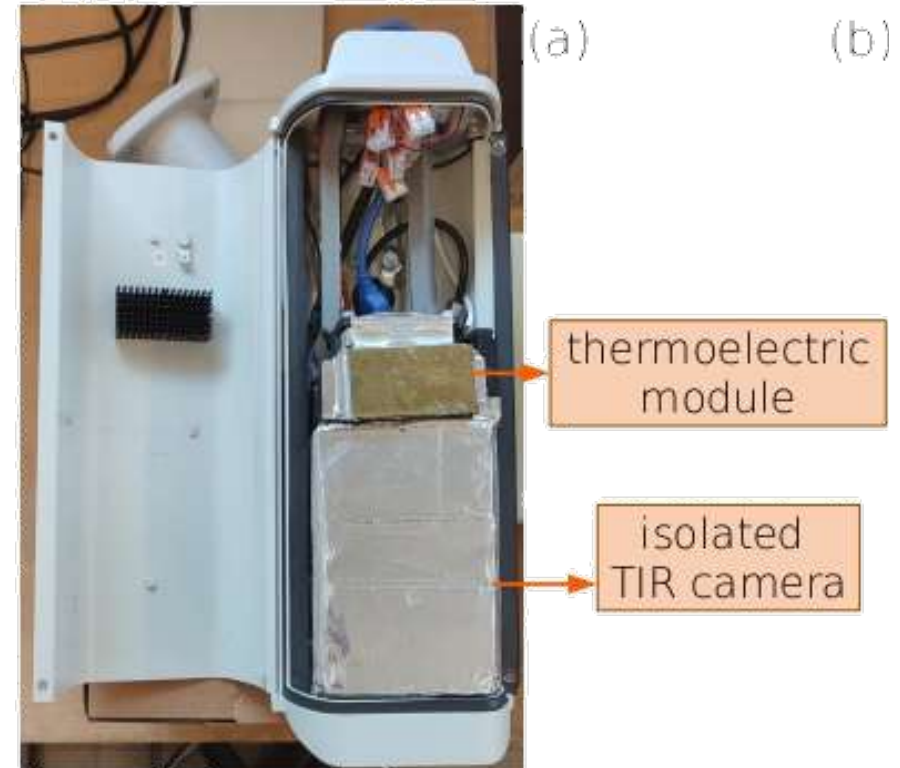
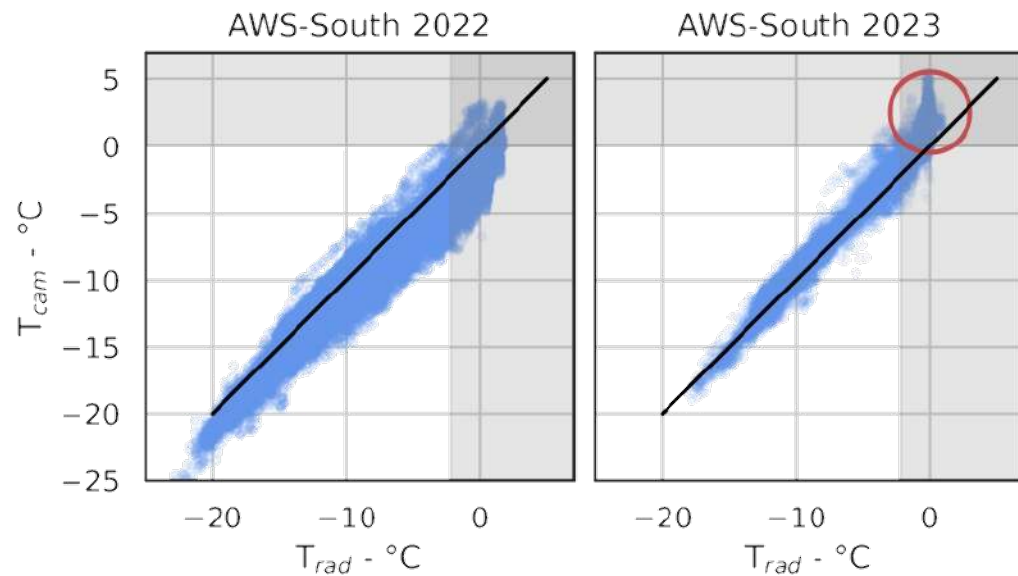
## Col du Lautaret





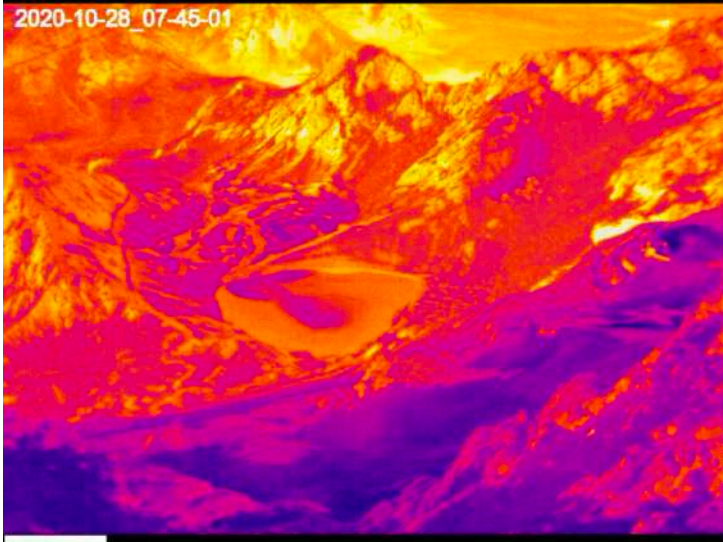
## Col du Lautaret

**Erreur < 1K**



Arioli, S., Picard, G., Arnaud, L., Gascoin, S., Alonso-González, E., Poizat, M., and Irvine, M.: Time series of alpine snow surface radiative-temperature maps from high-precision thermal-infrared imaging, *Earth System Science Data*, 16, 3913–3934, <https://doi.org/10.5194/essd-16-3913-2024>, 2024.

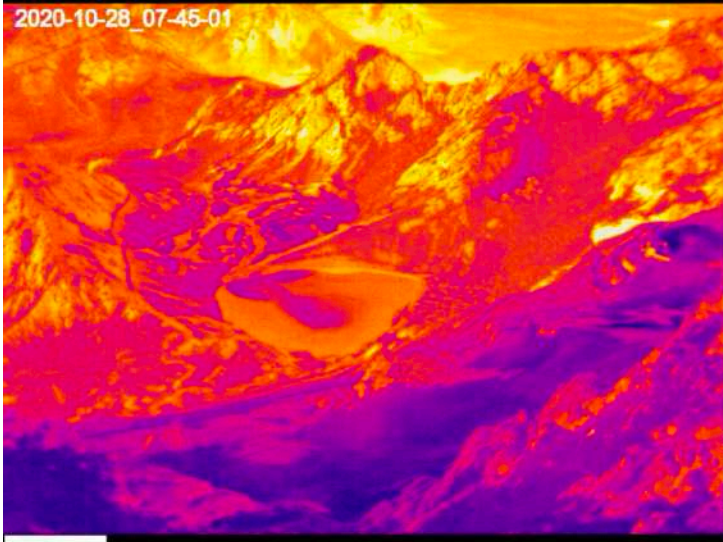
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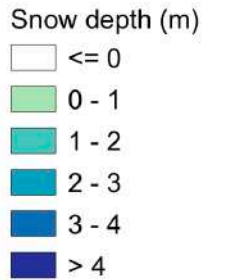
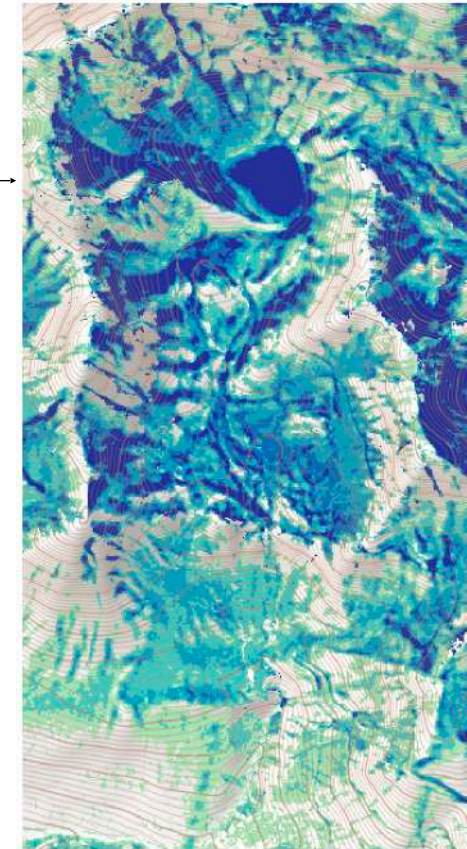
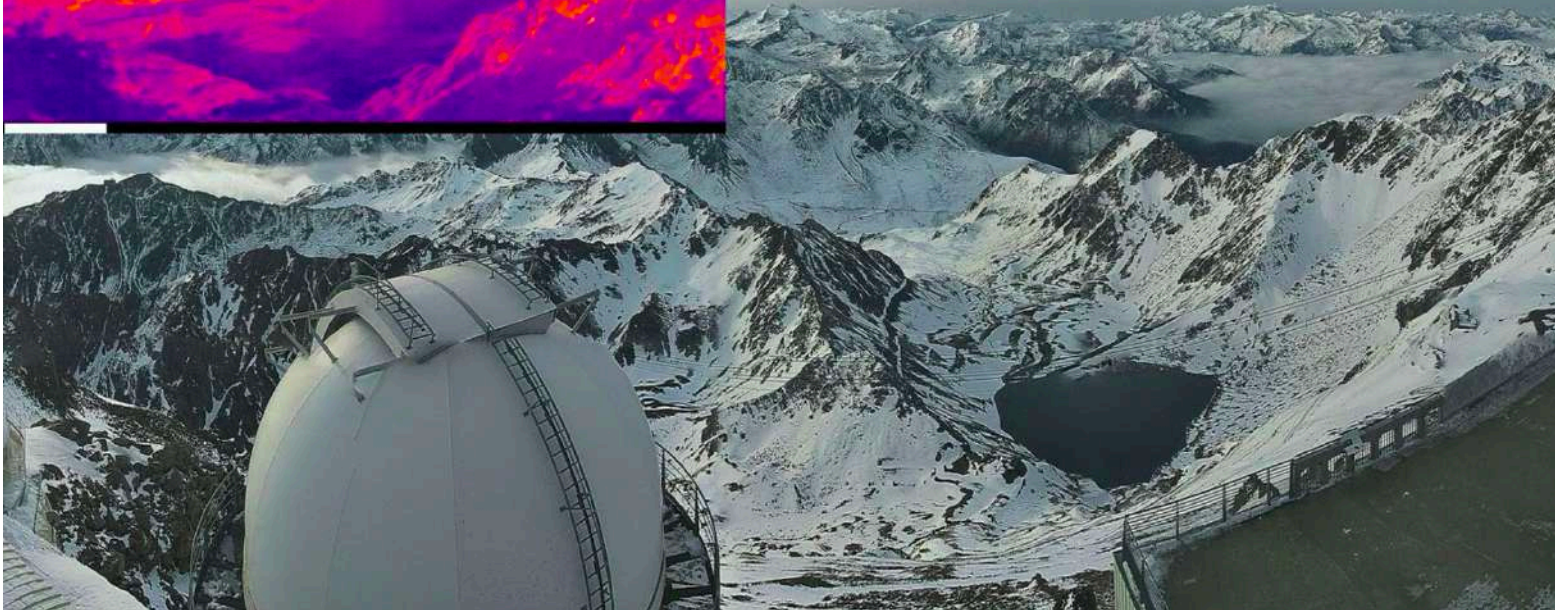
- Caméra IR
  - 4 hivers @ 5 min



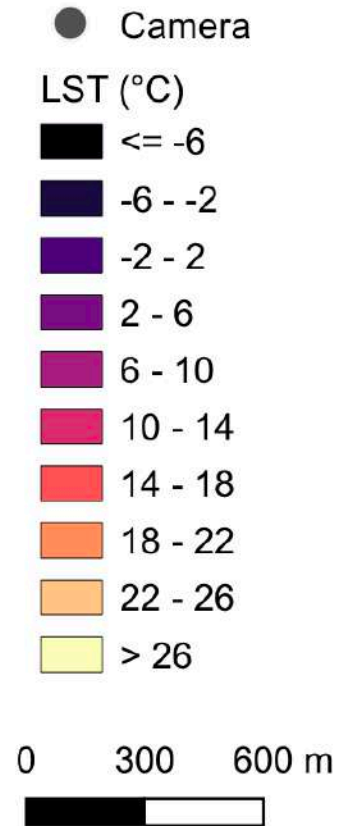
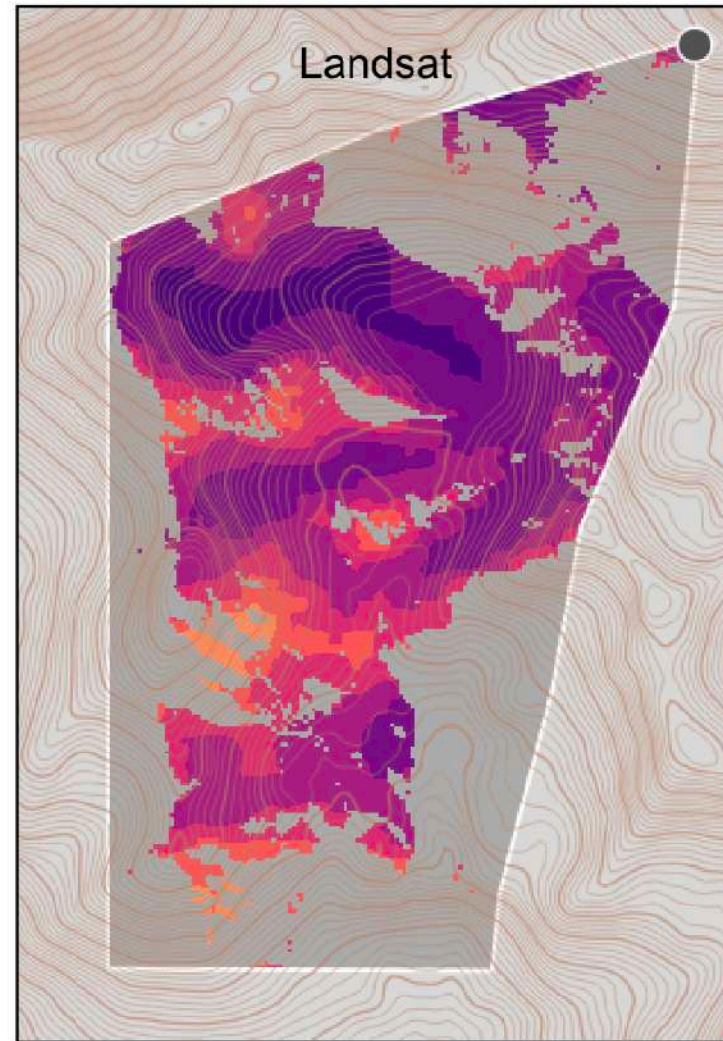
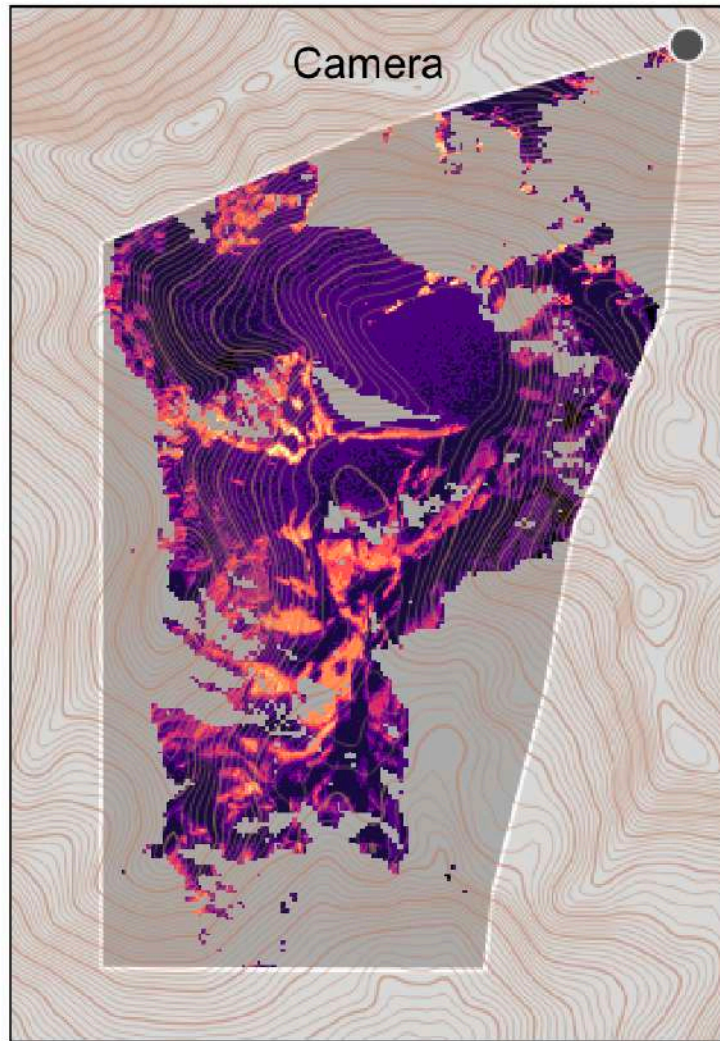
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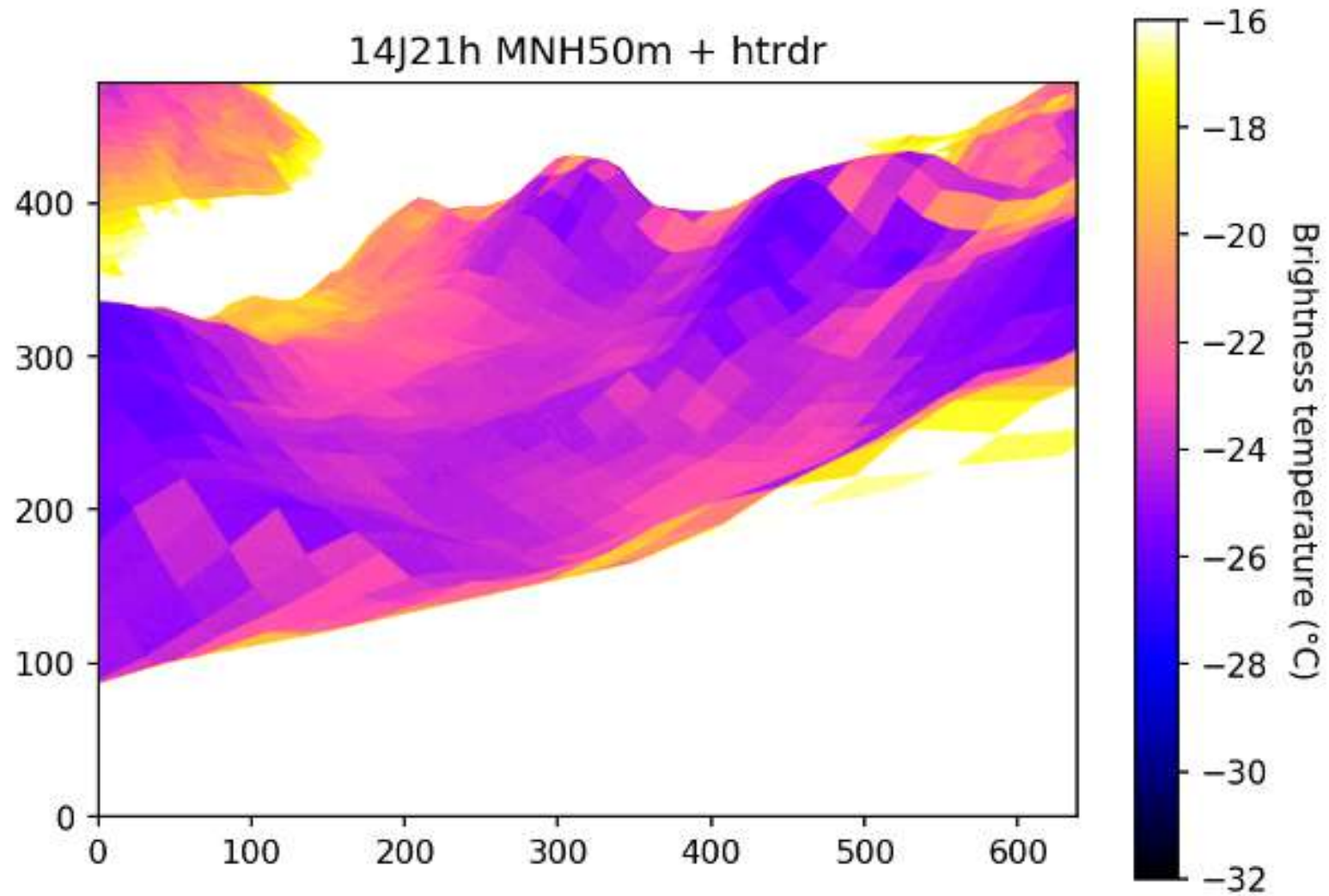
- Caméra IR
  - 4 hivers @ 5 min
- Station Sencours
- Pléiades (hauteur de neige)

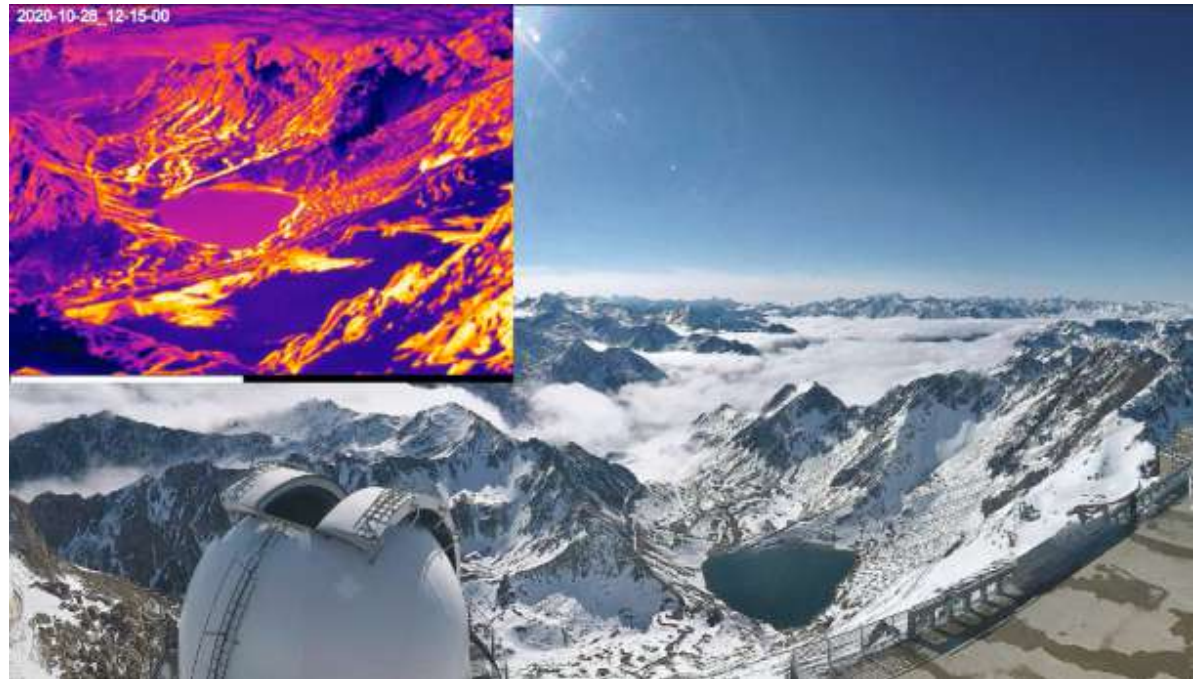
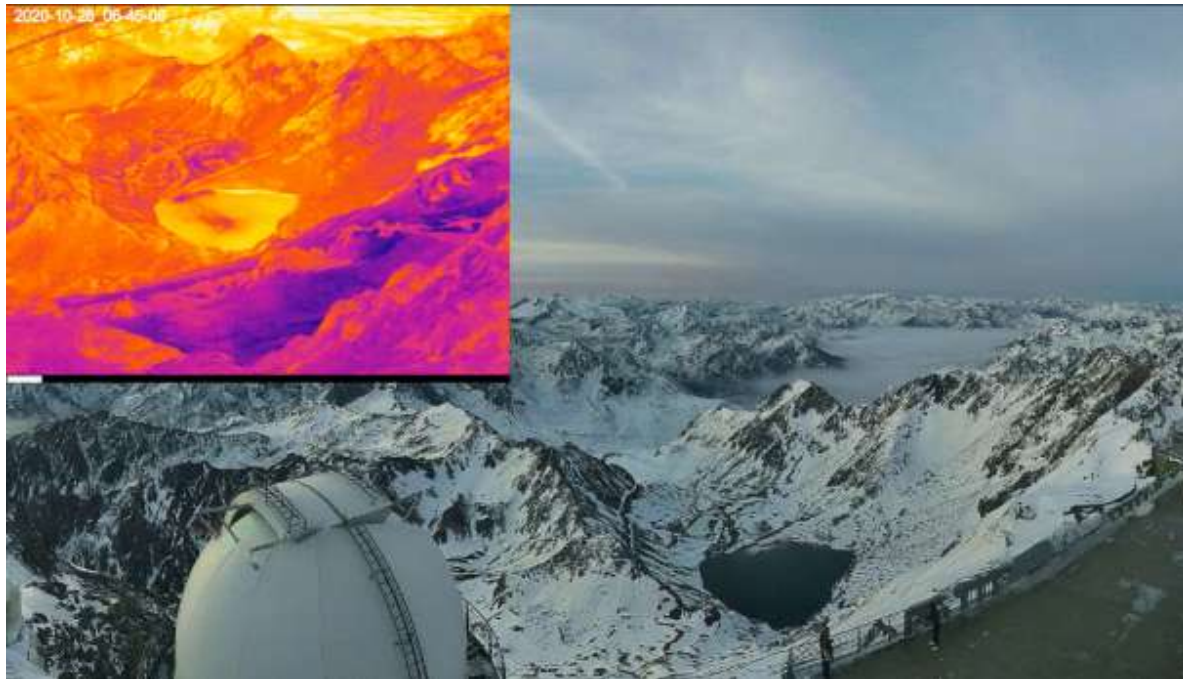


Oncet 2021 Apr 04

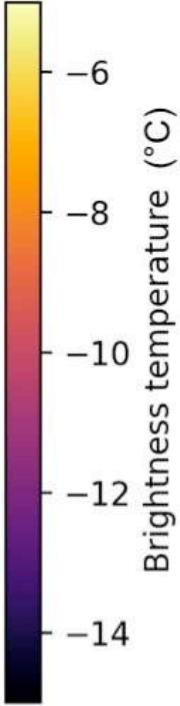
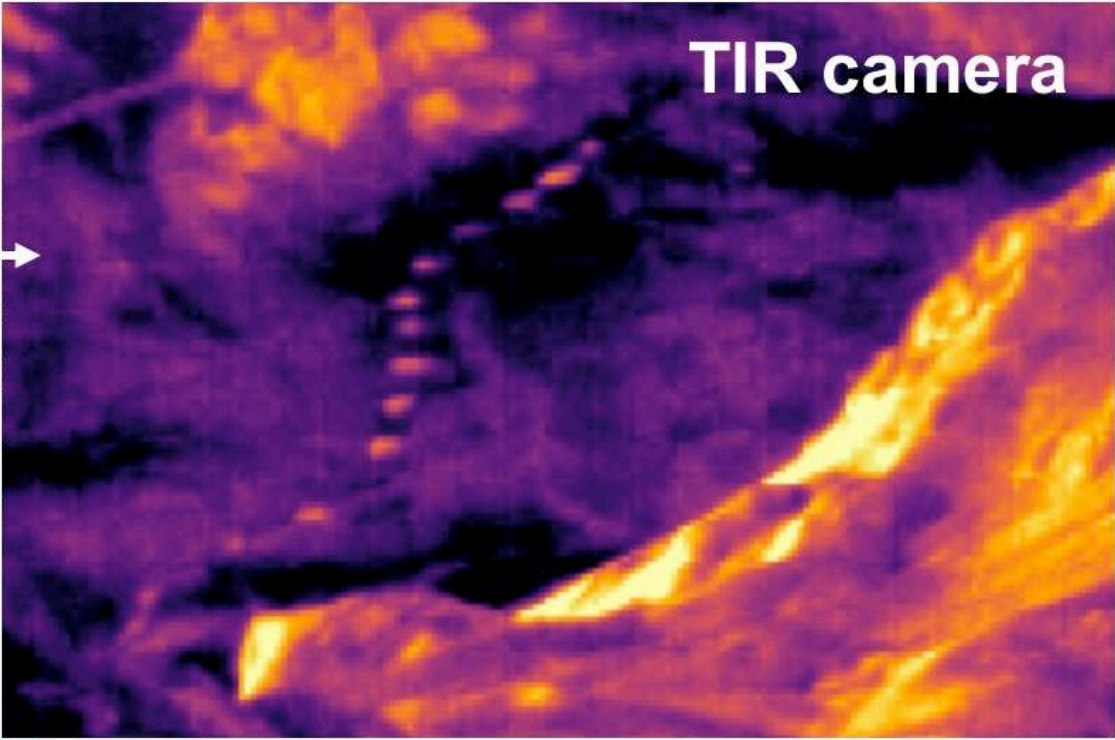


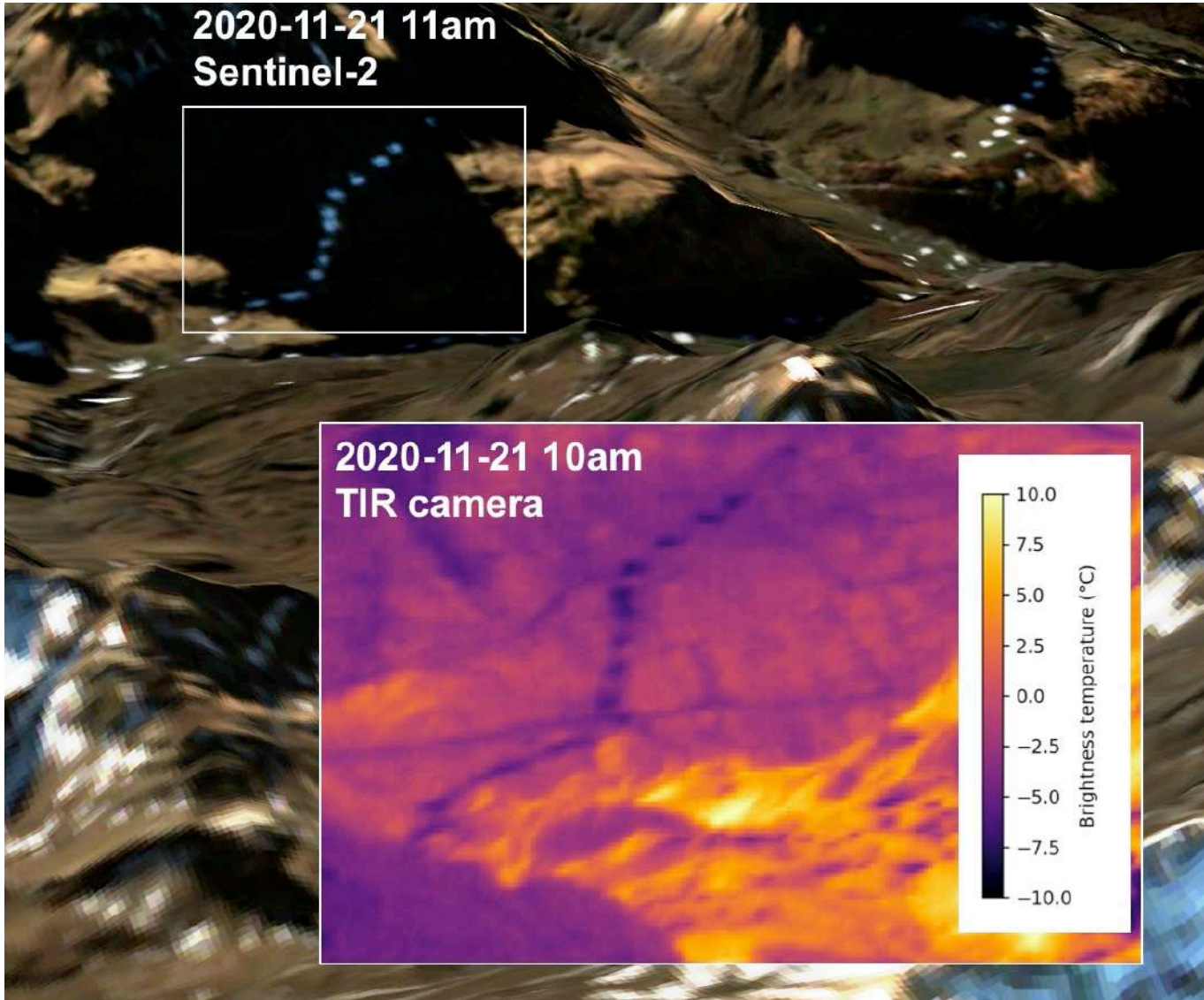
© CNRM  
Olivier Clary  
Najda Villefranque  
Quentin Libois





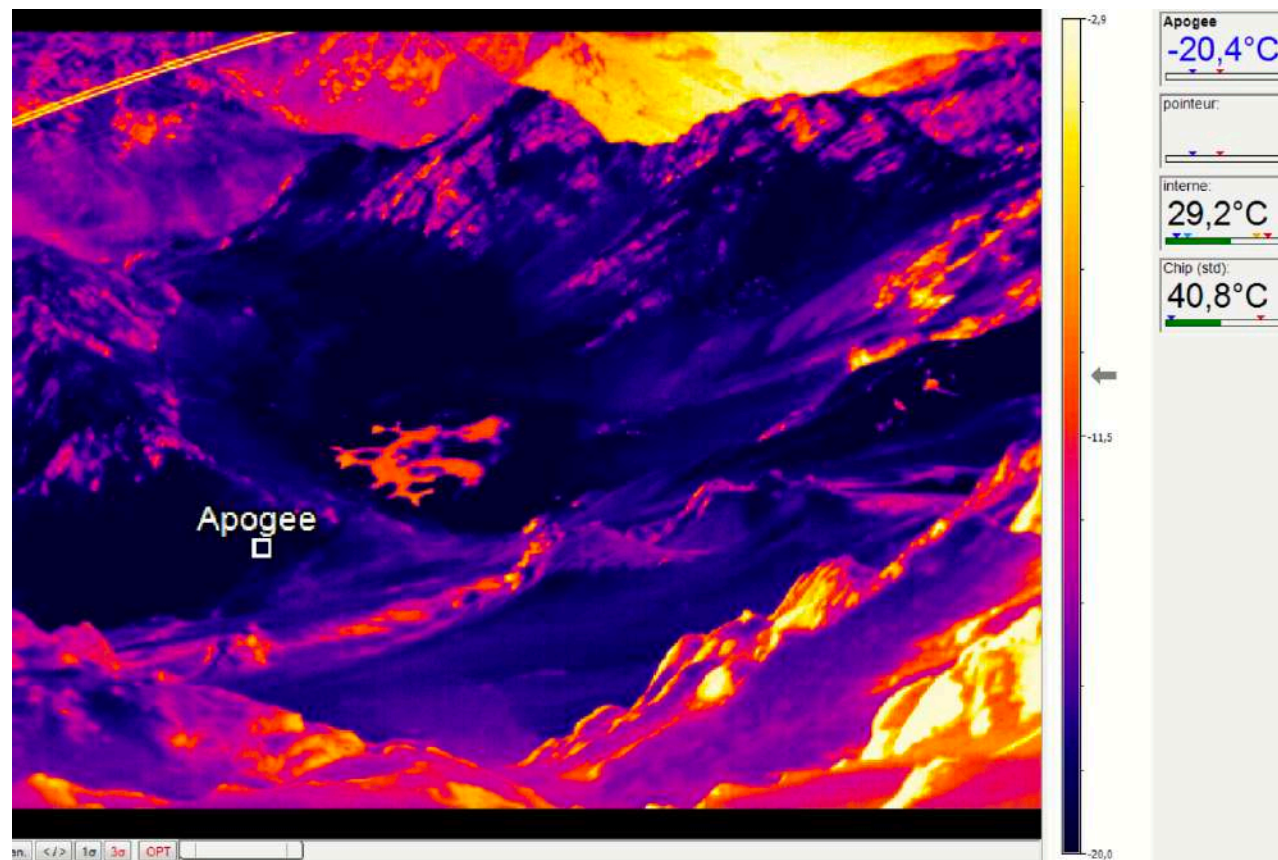
2021-11-18 8am







01 Dec 2022 5pm



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# Conclusion

- Quatre ans d'images thermiques au pas de temps 5 min
- Amélioration de la régulation thermique en cours
- Applications
  - cal/val Trishna
  - Modélisation du manteau neigeux
  - Lacs, zones humides, prairies...