

# REQUEST FOR ADDITIONAL RESOURCES IN THE CURRENT YEAR FOR AN EXISTING SPECIAL PROJECT

Please email the completed form to [special\\_projects@ecmwf.int](mailto:special_projects@ecmwf.int).

**MEMBER STATE:** .....ITALY.....

**Principal Investigator<sup>1</sup>:** .....Stefano Federico.....

**Affiliation:** ..... CNR-ISAC (Institute for Atmospheric Sciences and Climate - National Research Council).....  
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**Other researchers:** Claudio Transerici...(cmn), Rosa Claudia Torcasio (it85).....

**Project title:** ...  
Improvement of very-short term forecast using lightning and radar data assimilation  
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**Project account:** **SPITFEDE**

Additional computer resources requested for	2023
High Performance Computing Facility (units)	4,000,000
Data storage capacity (total) (Gbytes)	/

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<sup>1</sup> The Principal Investigator is the contact person for this Special Project

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## **Technical reasons and scientific justifications why additional resources are needed**

The project SPITFEDE has 3,000,000 of SBU left at the moment of writing. In the framework of the initiative COST Action CA19109 (<https://medcyclones.eu>), we are running every day a version of the WRF model that takes about 35,000 units. This run will take all the CPU left by the end of the year (it needs about 3.3 million). Recently there was the storm Danielle that is another storm studied in the same initiative and we would also start some simulations to study the warm core structure of this storm. Finally, a project about the wind data assimilation in Mediterranean cyclones will start on the 28 September. For the last purpose, the Medicanes Ianos will be used and some experiments have been already done this year in this project. We would like to deepen the study in this last part of the year. Finally, we applied for a new project for the next three years and, if approved, this extra SBU units will give continuity to our work.

A portion of the 4,000,000 SBU would be also useful to start the investigation.