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Dipartimento di  
Fisica



# PhD Program in Space Science and Technology - SST

## Changes in brain structure and the development of SANS during long-duration spaceflight

### Specific Seminar – Curriculum 4

2024, May 27, 4:00 p.m.

#### Speaker:

Prof. Donna Roberts, MD, Deputy Chief Scientist, International Space Station National Lab and Professor, Department of Radiology and Radiological Science, Medical University of South Carolina

#### Abstract:

Astronauts experience upward shift of the brain, crowding of brain tissue at the vertex, enlargement of the ventricles and wide spread local structural changes. In this talk, I will discuss the significance of these changes and any potential relationship to the development of spaceflight-associated neuro-ocular syndrome.

#### References:

Spaceflight associated neuro-ocular syndrome (SANS) and the neuro-ophthalmologic effects of microgravity: a review and an update.  
Lee AG, Mader TH, Gibson CR, Tarver W, Rabiei P, Riascos RF, Galdamez LA, Brunstetter T.  
NPJ Microgravity. 2020 Feb 7;6:7. doi: 10.1038/s41526-020-0097-9. eCollection 2020.  
PMID: 32047839

#### Online attendance:

<https://unitn.zoom.us/j/84088649561?pwd=RW5XR0huU05Vbi9yQmR1WVBNZEtlZz09>

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