

Victoria Sinclair  
Handledare för doktorandprogram, universitetslektor, Titeln docent  
Centret för atmosfärvetenskaper (INAR)  
Avdelningen för fysik  
Doctoral Programme in Atmospheric Sciences  
**Adressotyp: Postadress.**  
PL 64 (Gustaf Hällströmin katu 2)  
00014  
Finland  
**E-post:** victoria.sinclair@helsinki.fi  
**Mobil:** +358503185488  
**Telefon:** +358294140646



## Kvalifikationer

### Forskningsledare (Principal Investigator)

Tidsperiod : 31.10.2014 - \* i Centret för atmosfärvetenskaper (INAR)

### Anställning

#### universitetslektor

Centret för atmosfärvetenskaper (INAR)  
Helsingfors universitet  
Finland  
1 aug. 2019 → present

#### Titeln docent

Avdelningen för fysik  
Helsingfors universitet  
Finland  
12 sep. 2018 → present

#### Handledare för doktorandprogram

Doctoral Programme in Atmospheric Sciences  
Helsingfors universitet  
Finland  
1 jan. 2020 → present

## Publikationer

### The impact of the Himalayan aerosol factory: results from high resolution numerical modelling of pure biogenic nucleation over the Himalayan valleys

Ciarelli, G., Cholakian, A., Bettineschi, M., Vitali, B., Bessagnet, B., Sinclair, V. A., Mikkola, J., Haddad, I. E., Zardi, D., Marinoni, A., Bigi, A., Tuccella, P., Bäck, J., Gordon, H., Nieminen, T., Kulmala, M., Worsnop, D. & Bianchi, F., 19 mars 2025, I: Faraday Discussions. 18 s.

### Valley floor inclination affecting valley winds and transport of passive tracers in idealised simulations

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### Classification of North Atlantic and European extratropical cyclones using multiple measures of intensity

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### Severe haze episodes in Beijing may be influenced by emissions in far western China

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A. och 4 andra, Ashu, V. N., Kulmala, M., Paasonen, P. & Boy, M., 31 dec. 2024, (Insänt) I: Air quality, atmosphere & health.

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**Vertical distribution of ice nucleating particles over the boreal forest of Hyttiälä, Finland**

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**The Influence of Large-Scale Spatial Warming on Jet Stream Extreme Waviness on an Aquaplanet**

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**Analysis of chemical and transport processes of biogenic aerosols over the northern Apennines: insights from the WRF-CHIMERE model**

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**Changes in Northern Hemisphere extra-tropical cyclone frequency following volcanic eruptions**

Andreasen, L. S., Cornér, J., Abbott, P. M., Sinclair, V., Riede, F. & Timmreck, C., 1 juni 2024, I: Environmental research. Climate. 3, 2, 16 s., 025002.

**Analytical and adaptable initial conditions for dry and moist baroclinic waves in the global hydrostatic model OpenIFS (CY43R3)**

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**Measurement report: Molecular-level investigation of atmospheric cluster ions at the tropical high-altitude research station Chacaltaya (5240 m a.s.l.) in the Bolivian Andes**

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**Measurement report: Long-range transport and the fate of dimethyl sulfide oxidation products in the free troposphere derived from observations at the high-altitude research station Chacaltaya (5240 m a.s.l.) in the Bolivian Andes**

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**Temporal evolution of features that control 10-m wind gusts in moist baroclinic wave simulations identified using non-linear regression**

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**Boundary-layer height and surface stability at Hytiälä, Finland, in ERA5 and observations**

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**The SALTENA Experiment: Comprehensive Observations of Aerosol Sources, Formation, and Processes in the South American Andes**

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**Identifying source regions of air masses sampled at the tropical high-altitude site of Chacaltaya using WRF-FLEXPART and cluster analysis**

Aliaga, D., Sinclair, V. A., Andrade, M., Artaxo, P., Carbone, S., Kadantsev, E., Laj, P., Wiedensohler, A., Krejci, R. & Bianchi, F., 10 nov. 2021, I: Atmospheric Chemistry and Physics. 21, 21, s. 16453-16477 25 s.

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**Delineation of dew formation zones in Iran using long-term model simulations and cluster analysis**

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**The summer 2018 heatwave in Finland**

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Weather and climate modelling

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