



Top Research Initiative



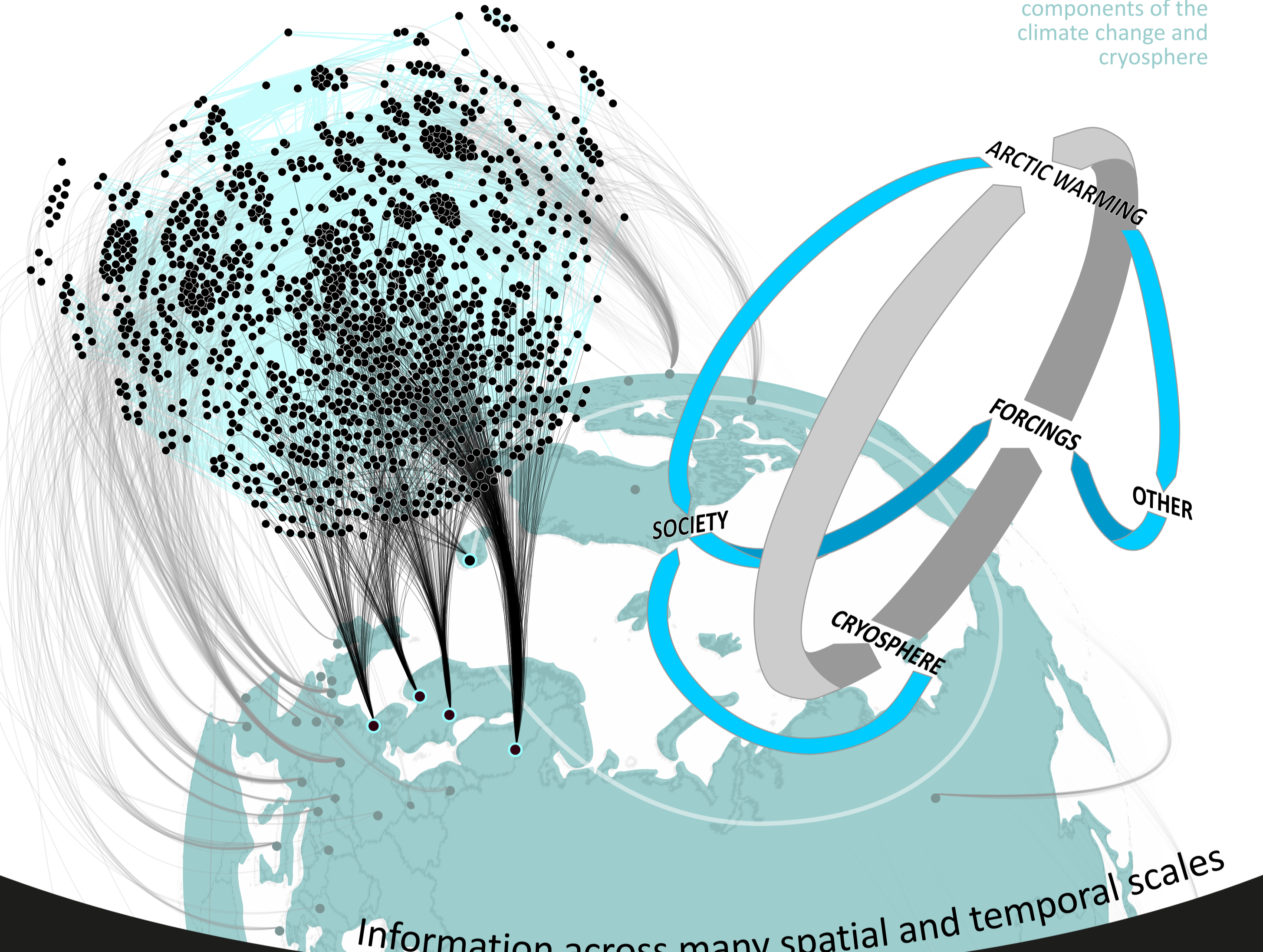
CRYOSPHERE-ATMOSPHERE INTERACTIONS IN A CHANGING ARCTIC CLIMATE

Nordic Cooperation and Arctic collaboration yields a lasting legacy

Researchers connected by authorship in publications that acknowledge CRAICC: 310 peer-reviewed papers (March 2019)

On Arctic warming and related feedback mechanisms

Ice-albedo feedback intelinks with other components of the climate change and cryosphere



Information across many spatial and temporal scales

	MICRO	MACRO	SITE	GLOBAL	
RECORDS	ON-LINE	particle characterization			Size distribution Physical characteristics
	OFF-LINE	molecular tracers			Chemical composition Cloud formation
	PALEO	ice-core	pollen		Records of Black Carbon
	LONG-TERM	lake sediment			Black Carbon in aerosols
	REMOTE	monitoring		Lidar satellite	Atmospheric boundary layer Earth surface characteristics
EXPERIMENTS	FIELD	SoS			Light-absorbing particles on snow surface
	LAB	sea-spray chambers			Physical and chemical properties of sea spray
		smog chambers			
MULTISCALE MODELS		Dynamic Vegetation			Vegetation Climate interaction in the past
		Lagrangian aerosol dynamic			Particle formation Long-term Black Carbon concentrations and deposition
		Eulerian chemical transport			Icelandic dust deposition
		Numerical weather prediction			Feedbacks
		Earth system models			

METHODS

Observational Scale

Phenomena studied