

CRYO STUDENT PROJECTS 2025

SHORTLIST

	BSC	MSC	Supervisor
MAPPING SURFACE ROUGHNESS FOR IMPROVING THE ENERGY BALANCE FOR THE GREENLAND ICE SHEET		✓	maiwin@dtu.dk
SURFACE DENSITY OF SNOW AND FIRN ON THE GREENLAND ICE SHEET FROM ICESAT-2 ALTIMETRY	✓	✓	maiwin@dtu.dk
TESTING CRYOSAT-2 BASELINE-E PSEUDO-LOW-RESOLUTION-MODE OVER SEA AND LAND ICE	✓	✓	hsko@dtu.dk rmfha@dtu.dk ssim@dtu.dk
ROUGHNESS AND VOLUME TRACING OF ICEBERGS, FAST ICE AND SEA ICE (MELANGE) IN GREENLAND FJORDS	✓	✓	hsko@dtu.dk rmfha@dtu.dk slss@dtu.dk
REGIONAL CLIMATE MODEL EMULATOR		✓	ssim@dtu.dk annpu@dtu.dk
MACHINE LEARNING FOR RADAR ALTIMETRY RETRACKING		✓	ssim@dtu.dk annpu@dtu.dk
MULTISPECTRAL CAMERA CONTROL FOR CRYOSPHERE SURVEY			ssim@dtu.dk hsk@dtu.dk
SEA ICE SURFACE TOPOGRAPHY AND ICEBERGS FROM SWOT SATELLITE	✓	✓	hsko@dtu.dk oand@dtu.dk
ARCTIC SEA ICE ALBEDO FROM AIRBORNE, SATELLITE AND MODELS	✓	✓	hsko@dtu.dk rtato@dtu.dk
INVESTIGATION OF SURFACE SAMPLING VARIATIONS IN CRYOSAT-2 RADAR FOOTPRINTS		✓	smhv@dtu.dk
SEA ICE INFLUENCE ON TIDAL OBSERVATIONS IN GREENLAND USING GNSS-IR	✓	✓	smhv@dtu.dk
SEA LEVEL OBSERVATIONS IN DENMARK USING GNSS REFLECTOMETRY – TEST CASE IN ESBJERG HARBOUR	✓		oand@dtu.dk smhv@dtu.dk
RECONCILING SATELLITE ALTIMETRY OBSERVATIONS ACROSS THE GREENLAND ICE SHEET	✓	✓	maiwin@dtu.dk
EVALUATING CLIMATE MODEL SNOW DEPTH SIMULATIONS USING SATELLITE-DERIVED OBSERVATIONS OVER ARCTIC SEA ICE		✓	maiwin@dtu.dk
INFLUENCE OF BASAL TOPOGRAPHY ON ICE FLOW AND SURFACE TOPOGRAPHY IN UPDATED PISM SIMULATIONS	✓	✓	maiwin@dtu.dk
PRECIPITATION OVER ICE SHEETS FROM EARTHCARE		✓	kimis@dtu.dk
EXPLORING NEW FRONTIERS IN THE RADAR ALTIMETRY REMOTE SENSING OF SEA ICE		✓	kimis@dtu.dk
CHALLENGING SPACEBORNE RADAR DATA PROCESSING FOR EARTH AND MARS		✓	kimis@dtu.dk
SEA ICE AND FASTICE NEAR NORTHEAST GREENLAND; IDENTIFYING EXTREME EVENTS	✓	✓	smh@dtu.dk hsko@dtu.dk
IMPACT OF EXTREME WILDFIRES ON GLACIER MELT	✓		stine@dtu.dk slss@dtu.dk
IMPROVING THE SEA LEVEL TIME SERIES IN THE POLAR OCEANS USING MACHINE LEARNING	✓	✓	stine@dtu.dk

USING NEURAL NETWORKS TO DETECT LEADS IN POLAR SEA ICE FOR BETTER SEA-LEVEL AND SEA ICE TYPE ESTIMATES FROM RADAR ALTIMETRY	✓	✓	stine@dtu.dk rmfha@dtu.dk
EXPLORING THE POLAR SEA ICE FROM THE AIR	✓	✓	hsk@dtu.dk rmfha@dtu.dk
IMPACT OF EXTREME EVENTS ON FLADE ISBLINK – AN ICE CAP IN THE HIGH ARCTIC	✓	✓	slss@dtu.dk rmfha@dtu.dk kimis@dtu.dk
STATE-SPACE MODELING OF SURFACE ELEVATION CHANGES UNDER EXTREME EVENTS	✓	✓	slss@dtu.dk naand@dtu.dk
DRIVERS OF SURFACE ELEVATION CHANGES AT FLADE ISBLINK	✓	✓	slss@dtu.dk naand@dtu.dk