

# Program: Pattern Dynamics in Nonlinear Optical Cavities PDNOC-2 Workshop

<https://www.math.auckland.ac.nz/en/about/pdnoc-2-workshop.html>

	Tuesday, 6 June Building 303 Room 257	Wednesday, 7 June Massey Univ. (Albany Campus)	Thursday, 8 June Building 303 Room 257	Friday, 9 June Building 303 Room 257
9:00	<b>Neil Broderick</b> <i>Principles of mode-locked fibre lasers</i>	<i>Transfer to Massey</i> <b>Meeting room1-2 of ecentre,</b> <i>Gate5, Oaklands Road, Auckland</i>	<b>Bernd Krauskopf</b> <i>Bifurcation analysis of laser systems with delays</i>	<b>Miro Erkintalo</b> <i>Nonlinear pulse-dynamics in optical microresonators</i>
10:00	Morning Tea	<b>Kathy Lüdge</b>	Morning Tea	Morning Tea
10:30	<b>Laurent Larger</b> <i>Nonlinear delay differential equations (DDE):</i>	<i>Dynamics of semiconductor laser systems</i>	<b>Stephane Barland</b> (dissipative optical solitons)	<b>Alejandro Giacomotti</b> <i>Quenched phases and superthermal light in strongly coupled dissipative optical cavities</i>
11:00	<i>basic principles, real-world, and implementation in photonics</i>	Morning Tea		
11:30	<b>Robert Otupiri</b> <i>Pulsing dynamics in an all-fibre laser with saturable absorber</i>	<b>Alejandro Giacomotti</b> <i>Spontaneous symmetry breaking in coupled photoniccrystal nanolasers: towards few photon regimes</i>	<b>Benjamin Lingnau</b> <i>Dynamics of quantum-dot micropillar lasers: optical injection and opto-electronic feedback</i>	<b>Soizic Terrien</b> <i>Effect of delayed optical feedback in a pulsing laser with saturable absorber</i>
12:00	<b>Yadong Wang</b> <i>Temporal cavity soliton bound state induced by dispersive wave radiation in fibre resonators</i>			
12:30	Lunch	Lunch	Lunch	Lunch
14:00	Meet the experts/ Discussion	<b>Sylvain Barbay</b> <i>Extreme events and spatio-temporal chaos in an extended microcavity laser</i>	Discussion	Discussion
15:00	Afternoon Tea	Discussion	Afternoon Tea	Afternoon Tea
15:30	Discussion	Afternoon Tea	Discussion	Discussion

	Monday, 12 June Room 303 G03	Tuesday, 13 June Room 303 G03	Wednesday, 14 June <i>Massey Univ. (Albany Campus)</i>	Thursday, 15 June <i>Excursion to the volcanic island Rangitoto</i>	Friday, 16 June Room 303 G03
9:00	<b>Sylvain Barbay</b> <i>Neuro-mimetic dynamics in excitable micropillar lasers</i>	<b>Ingo Fischer</b> <i>Neuro-Inspired Optical Information Processing: Concepts and Applications</i>	<i>Transfer to Massey Meeting room1-2 of ecentre, Gate5, Oaklands Road, Auckland</i>		<b>Julien Javaloyes</b> <i>Dissipative light bullets in mode-locked optical cavities</i>
10:00	Morning Tea	Morning Tea	<b>Stephane Coen</b>		Morning Tea
10:30	<b>Julien Javaloyes</b> <i>Mode-Locking in semiconductor lasers: from</i>	<b>Antonio Muñoz</b> <i>Bright solitons collisions in harmonically trapped</i>	<i>Temporal optical cavity solitons in fiber ring resonators: fundamentals and interactions</i>		<b>Stephane Barland</b> (dissipative optical solitons)
11:00	<i>pulses toward temporal localized structures</i>	<i>Bose-Einstein condensates</i>	Morning Tea		
11:30	<b>Naomi Gendler</b> <i>Pulse dynamics in Lasers with Saturable Absorber (30min talk)</i>	<b>Lina Jaurigue</b> <i>Phase sensitivity of mode-locking with optical feedback</i>	<b>Laurent Larger</b> <i>Exploiting complexity of DDE in photonics: Chaos encryption, pure Radar microwave, and brain inspired processing</i>		<b>Stefan Breuer</b> (mode-locking with delayed feedback)
12:30	Lunch	Lunch	Lunch		Lunch
14:00	Meet the experts / Discussion	Meet the experts / Discussion	<b>Bruno Garbin</b> <i>Experimental and numerical investigations of switching wave dynamics in a normally dispersive fiber ring resonator</i>		
15:00	Afternoon Tea	Afternoon Tea	Afternoon Tea		
15:30	Discussion	Discussion	<b>Stefan Breuer</b> (controlling mode-locking with delayed feedback)		
19:00			<b>Ingo Fischer</b> (public talk) <i>Can we teach lasers how to perform brain-inspired information processing</i>		