ENVIRONMENTAL AND APPLIED FLUID DYNAMICS

 AEROACOUSTICS O Aerodynamic noise control using porous liners. O Development and validation of hybrid noise prediction methods for confined flows. O Investigation of low speed cooling fan noise for ground transportation. 	E,N,T E,N E,N
 AERODYNAMICS OF GROUND VEHICLES O Ahmed body, solar car. O High speed train. 	E,N E,N
 HEAT TRANSFER Heat transfer in buildings and industrial flows. Free and forced convective flows over and around obstacles. Convective enhancement and impinging jets. Thermohydraulics of liquid metal reactors. 	E,N E,N E,N E,N
 INSTRUMENTATION O Particle Image Velocimetry. O Particle diagnostics using laser techniques. O Infrared thermometry and inverse method. 	E E E
 MULTIPHASE FLOWS O Dynamics of particles, droplets and/or bubbles in dispersed two-phase flows. O Sprays and flashing phenomena O Dynamics of Gas-Liquid Interfaces and sloshing phenomenon. O Two-phase hammer. O Nano-particle flow: sizing, filtration and passivation. 	E,N E,N E,N E,N E,N
 TURBULENCE O Investigation of coherent structures in turbulent flows. O Numerical simulation of turbulent flows in complex geometries. 	E,N N
 WIND TECHNOLOGY O Wind effects on structures and people. O Renewable energy: wind resources assessment for Wind Turbines. O Urban wind turbines. O Weather forecasting. O Dispersion of pollutants in built environment. 	E,N E,N E,N E,N E,N

- * Nature of subject : E = ExperimentalN = NumericalT = Theoretical

Nature*

	TURBOMACHINERY AND PROPULSION Nat	Nature*	
	Experimental validation of a high temperature (1100°C) cooled fast response pressure probe for HP turbine stage measurements.	E	
	Preliminary design of a high temperature cooled pneumatic and fast response direction pressure probe.	nal E	
	Development of a fast response static pressure probe.	Ν	,E
	Non-intrusive measurement technique for internal cooling passages.	E	
	Convective heat transfer and/or aerodynamic measurements in internal cooling channel	els. E	
	Measurement of low Re flows in rotating channels.	E	
	Testing of high lift / high load turbine blade.		E
	Effect of surface roughness on turbine blade performance at low RE number.		E
	Investigation of the HP – LP interaction in a transonic 1.5 turbine stage.	E,	N
	Steady and unsteady pressure, temperature and heat transfer measurements in rotation	. E	
	Design and analysis of contra-rotating turbines.	N	
	Investigation of transition in supersonic flows.	E,	T, N
	Research on pulsating coolant flows in transonic turbines.	E	
	Analysis and optimization of turbine based and rocket based combined cycles.	T,	N
	Multipoint optimisation of radial impellers and low solidity diffusers.		Ν
	Multi-objective optimisation of turbomachinery.	T,	N
	Optimisation of a 3D fan for automotive cooling.	Ν	
	Optimisation of a micro gas turbine cycle (steady and transients).	Т	
	Aero-thermal effects in tip gap flows.	E	
	Steady and unsteady pressure measurements in an axial compressor stage.	E	
	Experimental study of the seal leakage flow in axial compressor stage.	E	
	Experimental investigation of clocking effects in an axial compressor stage.	E	
	3D NS computations of the flow field in an axial compressor including a parametric study of casing treatment.	N	
	3D Aerodynamic design of an axial compressor stage including lean, sweep and hub v contouring.	vall N	
	Tip timing and tip clearance measurements in an axial compressor and turbine stage.	E	
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T = Theoretica

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