Francesco Contino

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Experimental study on ammonia/hydrogen/air combustion in spark ignition engine conditions. Fuel, 2020, 269, 117448.	6.4	238
2	An experimental and modeling study of ammonia with enriched oxygen content and ammonia/hydrogen laminar flame speed at elevated pressure and temperature. Proceedings of the Combustion Institute, 2021, 38, 2163-2174.	3.9	210
3	Experimental investigation on laminar burning velocities of ammonia/hydrogen/air mixtures at elevated temperatures. Fuel, 2020, 263, 116653.	6.4	202
4	Extension of the Eddy Dissipation Concept for turbulence/chemistry interactions to MILD combustion. Fuel, 2016, 163, 98-111.	6.4	180
5	Coupling of in situ adaptive tabulation and dynamic adaptive chemistry: An effective method for solving combustion in engine simulations. Proceedings of the Combustion Institute, 2011, 33, 3057-3064.	3.9	153
6	Modeling of ammonia combustion at low pressure. Combustion and Flame, 2012, 159, 2799-2805.	5.2	129
7	Experimental and numerical study, under LTC conditions, of ammonia ignition delay with and without hydrogen addition. Proceedings of the Combustion Institute, 2019, 37, 621-629.	3.9	119
8	Comparison of well-mixed and multiple representative interactive flamelet approaches for diesel spray combustion modelling. Combustion Theory and Modelling, 2014, 18, 65-88.	1.9	117
9	A robust and efficient stepwise regression method for building sparse polynomial chaos expansions. Journal of Computational Physics, 2017, 332, 461-474.	3.8	97
10	Experimental and numerical analysis of nitric oxide effect on the ignition of iso-octane in a single cylinder HCCI engine. Combustion and Flame, 2013, 160, 1476-1483.	5.2	86
11	Experimental investigation on ammonia combustion behavior in a spark-ignition engine by means of laminar and turbulent expanding flames. Proceedings of the Combustion Institute, 2021, 38, 5859-5868.	3.9	73
12	Energy and Economic Costs of Chemical Storage. Frontiers in Mechanical Engineering, 2020, 6, .	1.8	66
13	The effects of biomass syngas composition, moisture, tar loading and operating conditions on the combustion of a tar-tolerant HCCI (Homogeneous Charge Compression Ignition) engine. Energy, 2015, 87, 289-302.	8.8	61
14	Performance and Emissions of an Ammonia-Fueled SI Engine with Hydrogen Enrichment. , 0, , .		61
15	Ammonia-Hydrogen Blends in Homogeneous-Charge Compression-Ignition Engine. , 0, , .		57
16	Robust design optimization and stochastic performance analysis of a grid-connected photovoltaic system with battery storage and hydrogen storage. Energy, 2020, 213, 118798.	8.8	56
17	Combustion Characteristics of Ammonia in a Modern Spark-Ignition Engine. , 0, , .		56
18	A 22:1 Compression Ratio Ammonia-Hydrogen HCCI Engine: Combustion, Load, and Emission Performances. Frontiers in Mechanical Engineering, 2020, 6, .	1.8	51

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19	How can power-to-ammonia be robust? Optimization of an ammonia synthesis plant powered by a wind turbine considering operational uncertainties. Fuel, 2020, 266, 117049.	6.4	51
20	Waste heat recovery optimization in micro gas turbine applications using advanced humidified gas turbine cycle concepts. Applied Energy, 2017, 207, 218-229.	10.1	48
21	CFD simulations using the TDAC method to model iso-octane combustion for a large range of ozone seeding and temperature conditions in a single cylinder HCCI engine. Fuel, 2014, 137, 179-184.	6.4	46
22	Combustion Characteristics of Tricomponent Fuel Blends of Ethyl Acetate, Ethyl Propionate, and Ethyl Butyrate in Homogeneous Charge Compression Ignition (HCCI). Energy & Fuels, 2011, 25, 1497-1503.	5.1	43
23	Surrogate-assisted robust design optimization and global sensitivity analysis of a directly coupled photovoltaic-electrolyzer system under techno-economic uncertainty. Applied Energy, 2019, 248, 310-320.	10.1	43
24	Experimental Characterization of Ethyl Acetate, Ethyl Propionate, and Ethyl Butanoate in a Homogeneous Charge Compression Ignition Engine. Energy & Fuels, 2011, 25, 998-1003.	5.1	41
25	A hyperparameters selection technique for support vector regression models. Applied Soft Computing Journal, 2017, 61, 139-148.	7.2	41
26	Experimental and modeling study of formaldehyde combustion in flames. Combustion and Flame, 2012, 159, 1814-1820.	5.2	40
27	New concept of spray saturation tower for micro Humid Air Turbine applications. Applied Energy, 2014, 130, 723-737.	10.1	38
28	HCCI engine operated with unscrubbed biomass syngas. Fuel Processing Technology, 2017, 157, 52-58.	7.2	37
29	Optimal waste heat recovery in micro gas turbine cycles through liquid water injection. Applied Thermal Engineering, 2014, 70, 846-856.	6.0	35
30	Experimental characterisation of a micro Humid Air Turbine: assessment of the thermodynamic performance. Applied Thermal Engineering, 2017, 118, 796-806.	6.0	34
31	Simulations of Advanced Combustion Modes Using Detailed Chemistry Combined with Tabulation and Mechanism Reduction Techniques. SAE International Journal of Engines, 0, 5, 185-196.	0.4	32
32	Toward Higher Micro Gas Turbine Efficiency and Flexibility—Humidified Micro Gas Turbines: A Review. Journal of Engineering for Gas Turbines and Power, 2018, 140, .	1.1	32
33	A multiscale combustion model formulation for NO predictions in hydrogen enriched jet flames. International Journal of Hydrogen Energy, 2019, 44, 23436-23457.	7.1	30
34	T100 mGT converted into mHAT for domestic applications: Economic analysis based on hourly demand. Applied Energy, 2016, 164, 1019-1027.	10.1	29
35	Does humidification improve the micro Gas Turbine cycle? Thermodynamic assessment based on Sankey and Grassmann diagrams. Applied Energy, 2017, 204, 1163-1171.	10.1	29
36	Combustion and Emissions Characteristics of Valeric Biofuels in a Compression Ignition Engine. Journal of Energy Engineering - ASCE, 2014, 140, .	1.9	27

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37	Fouling propensity of high-phosphorus solid fuels: Predictive criteria and ash deposits characterisation of sunflower hulls with P/Ca-additives in a drop tube furnace. Fuel, 2016, 170, 16-26.	6.4	27
38	Robust design optimization of a photovoltaic-battery-heat pump system with thermal storage under aleatory and epistemic uncertainty. Energy, 2021, 229, 120692.	8.8	27
39	How sensitive is a dynamic ammonia synthesis process? Global sensitivity analysis of a dynamic Haber-Bosch process (for flexible seasonal energy storage). Energy, 2021, 232, 121016.	8.8	25
40	EGR control on operation of a tar tolerant HCCI engine with simulated syngas from biomass. Applied Energy, 2018, 227, 159-167.	10.1	24
41	Carbon capture on micro gas turbine cycles: Assessment of the performance on dry and wet operations. Applied Energy, 2017, 207, 243-253.	10.1	23
42	Humidified micro gas turbines for domestic users: An economic and primary energy savings analysis. Energy, 2016, 117, 429-438.	8.8	22
43	Screening Method for Fuels in Homogeneous Charge Compression Ignition Engines: Application to Valeric Biofuels. Energy & Fuels, 2017, 31, 607-614.	5.1	22
44	Assessment of On-the-Fly Chemistry Reduction and Tabulation Approaches for the Simulation of Moderate or Intense Low-Oxygen Dilution Combustion. Energy & Fuels, 2018, 32, 10121-10131.	5.1	20
45	Experimental Characterization of a T100 Micro Gas Turbine Converted to Full Humid Air Operation. Energy Procedia, 2014, 61, 2083-2088.	1.8	19
46	Spectral representation of stochastic field data using sparse polynomial chaos expansions. Journal of Computational Physics, 2018, 367, 109-120.	3.8	19
47	How to ensure the interpretability of experimental data in Rapid Compression Machines? A method to validate piston crevice designs. Combustion and Flame, 2018, 198, 393-411.	5.2	19
48	Whole-energy system models: The advisors for the energy transition. Progress in Energy and Combustion Science, 2020, 81, 100872.	31.2	19
49	The Role of Electrofuels under Uncertainties for the Belgian Energy Transition. Energies, 2021, 14, 4027.	3.1	19
50	Advanced Humidified Gas Turbine Cycle Concepts Applied to Micro Gas Turbine Applications for Optimal Waste Heat Recovery. Energy Procedia, 2017, 105, 1712-1718.	1.8	18
51	Reducing waste heat to the minimum: Thermodynamic assessment of the M-power cycle concept applied to micro Gas Turbines. Applied Energy, 2020, 279, 115898.	10.1	18
52	Experimental Investigation of the Effect of Steam Dilution on the Combustion of Methane for Humidified Micro Gas Turbine Applications. Combustion Science and Technology, 2016, 188, 1199-1219.	2.3	17
53	CFD simulations of Rapid Compression Machines using detailed chemistry: Impact of multi-dimensional effects on the auto-ignition of the iso-octane. Proceedings of the Combustion Institute, 2017, 36, 383-391.	3.9	17
54	CFD simulations of Rapid Compression Machines using detailed chemistry: Evaluation of the â€~crevice containment' concept. Combustion and Flame, 2018, 189, 225-239.	5.2	17

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55	Techno-economic feasibility study of a solar-powered distributed cogeneration system producing power and distillate water: Sensitivity and exergy analysis. Renewable Energy, 2020, 150, 1089-1097.	8.9	17
56	How can renewable hydrogen compete with diesel in public transport? Robust design optimization of a hydrogen refueling station under techno-economic and environmental uncertainty. Applied Energy, 2022, 312, 118694.	10.1	17
57	T100 Micro Gas Turbine Converted to Full Humid Air Operation: Test Rig Evaluation. , 2014, , .		16
58	Development and application in Aspen Plus of a process simulation model for the anaerobic digestion of vinasses in UASB reactors: Hydrodynamics and biochemical reactions. Journal of Environmental Chemical Engineering, 2020, 8, 103540.	6.7	16
59	Detailed Kinetic Analysis of HCCI Combustion Using a New Multi-Zone Model and CFD Simulations. SAE International Journal of Engines, 0, 6, 1594-1609.	0.4	15
60	Multifuel CHP HCCI Engine towards Flexible Power-to-fuel: Numerical Study of Operating Range. Energy Procedia, 2017, 105, 1532-1538.	1.8	15
61	Robust Operational Optimization of a Typical micro Gas Turbine. Energy Procedia, 2019, 158, 5795-5803.	1.8	15
62	Engine Performances and Emissions of Second-Generation Biofuels in Spark Ignition Engines: The Case of Methyl and Ethyl Valerates. , 0, , .		14
63	Application of Bound-to-Bound Data Collaboration approach for development and uncertainty quantification of a reduced char combustion model. Fuel, 2018, 232, 769-779.	6.4	14
64	Impact of Mileage on Particle Number Emission Factors for EURO5 and EURO6 Diesel Passenger Cars. Atmospheric Environment, 2021, 244, 117975.	4.1	14
65	Process simulation and techno-economic assessment of vinasse-to-biogas in Cuba: Deterministic and uncertainty analysis. Chemical Engineering Research and Design, 2021, 169, 33-45.	5.6	14
66	Simplified elements for wind-tunnel measurements with type-III-terrain atmospheric boundary layer. Measurement: Journal of the International Measurement Confederation, 2016, 91, 590-600.	5.0	12
67	Tar Tolerant HCCI Engine Fuelled with Biomass Syngas: Combustion Control Through EGR. Energy Procedia, 2017, 105, 1764-1770.	1.8	12
68	CO Emission Measurements and Performance Analysis of 10 kW and 20 kW Wood Stoves. Energy Procedia, 2014, 61, 2301-2306.	1.8	11
69	Transient Simulations of a T100 Micro Gas Turbine Converted Into a Micro Humid Air Turbine. , 2015, , .		11
70	Exhaust Gas Recirculation on Humidified Flexible Micro Gas Turbines for Carbon Capture Applications. , 2016, , .		11
71	Ash Characterization of Four Residual Wood Fuels in a 100 kW _{th} Circulating Fluidized Bed Reactor Including the Use of Kaolin and Halloysite Additives. Energy & Fuels, 2016, 30, 8304-8315.	5.1	11
72	On the application of tabulated dynamic adaptive chemistry in ethylene-fueled supersonic combustion. Combustion and Flame, 2018, 197, 265-275.	5.2	11

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73	Is There a Future for Small-Scale Cogeneration in Europe? Economic and Policy Analysis of the Internal Combustion Engine, Micro Gas Turbine and Micro Humid Air Turbine Cycles. Energies, 2019, 12, 413.	3.1	11
74	Uncertainty quantification from raw measurements to post-processed data: A general methodology and its application to a homogeneous-charge compression–ignition engine. International Journal of Engine Research, 2020, 21, 1709-1737.	2.3	10
75	Surrogate-Assisted Modeling and Robust Optimization of a Micro Gas Turbine Plant With Carbon Capture. Journal of Engineering for Gas Turbines and Power, 2020, 142, .	1.1	10
76	A Study on the Performance of Steam Injection in a Typical Micro Gas Turbine. , 2013, , .		9
77	Thermodynamic Analysis of Water Injection in a Micro Gas Turbine: Sankey and Grassmann Diagrams. Energy Procedia, 2017, 105, 1414-1419.	1.8	9
78	Predicting octane numbers relying on principal component analysis and artificial neural network. Computers and Chemical Engineering, 2022, 161, 107784.	3.8	9
79	Comparison of Biodiesel Production Scenarios with Coproduction of Triacetin According to Energy and GHG Emissions. Energy Procedia, 2014, 61, 1852-1859.	1.8	8
80	T100 Micro Gas Turbine Converted to Full Humid Air Operation: A Thermodynamic Performance Analysis. , 2015, , .		8
81	Operational Optimization of a Typical micro Gas Turbine. Energy Procedia, 2017, 142, 1653-1660.	1.8	8
82	Optimal design and operating strategy of a carbon-clean micro gas turbine for combined heat and power applications. International Journal of Greenhouse Gas Control, 2019, 88, 469-481.	4.6	8
83	Prediction of the Octane Number: A Bayesian Pseudo-Component Method. Energy & Fuels, 2020, 34, 12598-12605.	5.1	8
84	Ignition Study of an Oxygenated and High-Alkene Light Petroleum Fraction Produced from Automotive Shredder Residues. Energy & Fuels, 2019, 33, 5664-5672.	5.1	7
85	Micro Gas Turbine Cycle Humidification for Increased Flexibility: Numerical and Experimental Validation of Different Steam Injection Models. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	1.1	7
86	Analysis of the dynamics of a slider-crank mechanism locally actuated with an act-and-wait controller. Mechanism and Machine Theory, 2021, 159, 104253.	4.5	7
87	RHEIA: Robust design optimization of renewable Hydrogen and dErlved energy cArrier systems. Journal of Open Source Software, 2022, 7, 4370.	4.6	7
88	Towards the Use of Eulerian Field PDF Methods for Combustion Modeling in IC Engines. SAE International Journal of Engines, 0, 7, 286-296.	0.4	6
89	CFD-aided benchmark assessment of coal devolatilization one-step models in oxy-coal combustion conditions. Fuel Processing Technology, 2016, 154, 27-36.	7.2	5
90	Collaboration of simulations and experiments for development and uncertainty quantification of a reduced char combustion model. Energy Procedia, 2017, 120, 500-507.	1.8	5

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91	Study of the HCCI Running Zone Using Ethyl Acetate. , 0, , .		4
92	Economic Analysis of a Micro Humid Air Turbine for Domestic Applications. Energy Procedia, 2014, 61, 1476-1482.	1.8	4
93	Towards Higher Micro Gas Turbine Efficiency and Flexibility: Humidified MGTS $\hat{a} \in \hat{~}$ A Review. , 2017, , .		4
94	Comparison of metaheuristics algorithms on robust design optimization of a plain-fin-tube heat exchanger. , 2017, , .		4
95	Emission Measurement of Buses Fueled with Biodiesel Blends during On-Road Testing. Energies, 2020, 13, 5267.	3.1	4
96	Recuperator Performance Assessment in Humidified Micro Gas Turbine Applications Using Experimental Data Extended With Preliminary Support Vector Regression Model Analysis. Journal of Engineering for Gas Turbines and Power, 2021, 143, .	1.1	4
97	Sensitivity Analysis and Uncertainty Quantification for the Ffowcs Williams-Hawkings Equation. , 2017, , .		4
98	Carbon Capture on a Micro Gas Turbine: Assessment of the Performance. Energy Procedia, 2017, 105, 4046-4052.	1.8	3
99	Uncertainty quantification for the aeroacoustics of rotating blades in the time domain. Applied Acoustics, 2018, 139, 57-68.	3.3	3
100	Prediction of the PIONA and oxygenate composition of unconventional fuels with the Pseudo-Component Property Estimation (PCPE) method. Application to an Automotive Shredder Residues-derived gasoline. , 2018, , .		3
101	Multi-Fidelity Design Optimisation of a Solenoid-Driven Linear Compressor. Actuators, 2020, 9, 38.	2.3	3
102	Experimental Characterisation of a Humidified T100 Micro Gas Turbine. , 2016, , .		2
103	Carbon Clean Combined Heat and Power Production from micro Gas Turbines: Thermodynamic Analysis of Different Scenarios. Energy Procedia, 2017, 142, 1622-1628.	1.8	2
104	Micro Gas Turbine Cycle Humidification for Increased Flexibility: Numerical and Experimental Validation of Different Steam Injection Models. , 2018, , .		2
105	Uncertainty quantification in industrial turbo-machinery design using sparse polynomial chaos expansions. , 2018, , .		2
106	Techno-economic uncertainty quantification and robust design optimization of a directly coupled photovoltaic-electrolyzer system. Energy Procedia, 2019, 158, 1750-1756.	1.8	2
107	On the refinement of the rotation rate based Smagorinsky model using velocity field gradients. Physics of Fluids, 2017, 29, 105109.	4.0	1
108	Humidified Micro Gas Turbine for Carbon Capture Applications: Preliminary Experimental Results With CO2 Injection. , 2018, , .		1

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109	A correction technique for spurious signals from the permeable Ffowcs Williams-Hawkings equation. , 2018, , .		1
110	Taxonomy of the Fuels in a Whole-Energy System. Frontiers in Energy Research, 2021, 9, .	2.3	1
111	Experimental Investigation of the Dynamics of a Slider-Crank Mechanism With Local Linear Force Input. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	2.2	1
112	Towards real time transient mGT performance assessment: effective prediction using accurate component modelling techniques. Journal of the Global Power and Propulsion Society, 0, 6, 96-105.	0.8	1
113	Robust design optimization of a renewable-powered demand with energy storage using imprecise probabilities. E3S Web of Conferences, 2021, 238, 10004.	0.5	0
114	Optimization in probabilistic domains: an engineering approach. , 2020, , 391-414.		0