FAPERJ
Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro

FAPERJ – Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro
GOVERNO DO ESTADO DO RIO DE JANEIRO
Secretaria de Estado de Ciência e Tecnologia do Rio de Janeiro

FAPERJ
Processo n.º
Data: ___/___/_____ Fls.:___
Rubrica:

Formulário de Inscrição

Edital: APQ5 - Apoio à participação em Reunião Científica - 2015/1

Solicitante: Gustavo Rabello dos Anjos

Pedido: 210078

Instituição:	Universidade do Estado do Rio de Janeiro - UERJ						
Unidade:	Faculdade de Engenharia						
Departamento:	Engenharia Mecânica						
CEP:	20550-900						
Endereço:	Universidade do Estado do Rio de Janeiro - UERJ					**Número:**	524
Complemento:	5020a				**Bairro:**	Maracanã	
Município:	Rio de Janeiro	**UF:**	RJ	**País:**	Brasil		
Telefone:	21	23340685	**Ramal:**				

Área

Grande Área	Área	Sub Área
Engenharias	Engenharia mecânica	Fenômenos de Transporte
Engenharias	Engenharia mecânica	Engenharia Térmica

Área/Setor Principal

Fenômenos de Transporte

Tema	Principal
Faixa:	

Dados Gerais

Dados Gerais

Título

ALE-FEM FOR TWO-PHASE FLOWS WITH HEAT AND MASS TRANSFER IN MICROCHANNELS

Resumo

A numerical method is described to study two-phase flows for single and multiple bubbles with phase chage. The fluid flow equations are based on the Arbitrary Lagrangian-Eulerian for- mulation (ALE) and the Finite Element Method (FEM), creating a new two-phase method with an improved model for the liquid- gas interface in microchannels. A successful adaptive mesh up- date procedure is also described for effective management of the mesh at the two-phase interface to remove, add and repair sur- face elements, since the computational mesh nodes move accord- ing to the flow. The Lagrangian description explicitly defines the two-phase interface position by a set of interconnected nodes which ensures a sharp representation of the boundary, including the role of the surface tension. The methodology proposed for computing the curvature leads to accurate results with moderate programming effort and computational cost and it can also be applied to different configurations with an explicit description of the interface. Such a methodology can be employed to study accurately many problems such as oil extraction and refinement in the petroleum area, design of refrigeration systems, modelling of biological systems and efficient cooling of electronics for compu- tational purposes, being the latter the aim of this research. The obtained numerical results will be described, therefore proving the capability of the proposed new methodology.

Programa da Reunião

Technical Tracks: - Advanced Electronics and Photonics: Packaging, Interconnect and Reliability - Emerging Technology Frontiers - MEMS and NEMS - Thermal Management - Thermal Management Using Micro Channels, Jets, Sprays - Fundamentals of Thermal and Fluid Transport in Nano, Micro, and Mini Scales - Advanced Fabrication and Manufacturing - Energy, Health and Water- Applications of Nano-, Micro- and Mini-Scale Devices - Panels - Technology Update Talks - Mini Workshops and Tutorials - Student Poster and Networking Session - Exhibits, Vendors, and Sponsors (Technical Presentation) - Advanced Electronics and Photonics, Packaging Materials and Processing
Dados adicionais considerados importantes
Committees: General Chair Mike Ellsworth, IBM Senior Technical Staff Member Systems and Technology Group IBM Corporation 2455 South Rd. M/S P520 Poughkeepsie, NY 12601 Phone: 845-433-5228 Fax: 845-432-9805 General Co-Chair Takashi Kawakami Professor Toyoma Prefectural University Phone: 81-766-56-7500 Technical Program Chair Consulting Professor Mehdi Asheghi Stanford University
Outros contatos previstos
Programa do Evento
InterPACK is the premier international forum for exchange of state-of-the-art knowledge in research, development, manufacturing, and applications of electronics packaging, MEMS, and NEMS. It is the flagship conference of the Electronics and Photonics Packaging Division (EPPD). The InterPACK conference series was founded in 1992 as the ASME-JSME Joint Electronics Packaging Conference. It was renamed InterPACK in 1995 and has occurred biannually since then. The conference is held in technical co-operation with the Japanese Society of Mechanical Engineering (JSME). InterPACK attracts researchers and practitioners from academia, industry, and government and serves as a venue for knowledge dissemination and collaboration amongst its participants. InterPACK supports EPPD´s mission to (a) promote the art, science, and practice of electrical, electronic, and photonics packaging; (b) encourage and foster research, development, and dissemination of reliable data and results of engineering importance pertaining to subjects within the division´s scope of activities; (c) encourage the interchange of ideas among engineers by encouraging the preparation and publication of papers in the field of electrical, electronic, and photonics packaging; and (d) encourage the organization of programs for the presentation and discussion of papers where all members of the Society may meet on an equal basis to exchange experiences and technical data. InterPACK also strives to encourage new membership by fostering graduate student participation and encouraging them to join ASME and EPPD. As part of the peer-review process, and further review by the conference leadership, the highest quality papers in the conference are recommended for publication in the Journal of Electronic Packaging (JEP). InterPACK also supports ASME´s mission to serve diverse global communities by co-sponsoring the event with JSME. In addition to Japan, the conference attracts other participants from eastern Asia: South Korea, China, Taiwan, and Singapore to name a few. We also have participation from Europe and from the Middle East.
Data de início do Congresso
06/07/2015 00:00:00
Data de fim do Congresso
09/07/2015 00:00:00
Especialidade 1
Dinâmica de Fluidos
Especialidade 2
Engenharia Térmica
Especialidade 3
Escoamentos Multifásicos
Palavra Chave1
Microchannels
Palavra Chave2
Heat and Mass Transfer
Palavra Chave3
Two-phase flows
Palavra Chave4
Thermal Management
Palavra Chave5
Energy Applications
Palavra Chave6
Advanced Electronics

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Orçamento detalhado de Custeio

Diárias em Território Nacional e Internacional							
Itens	**Discriminação**	**Unidades**	**Quant**	**Vl unit**	**Vl total**	**Observações**	**Anexo**
1	diária nos EUA	1	4	R$ 807,39	R$ 3229,56	valores convertidos em moeda nacional. O VI. unitário é de US$250,00 conforme valores de diárias.	Sim
			4	R$ 807,39	R$ 3229,56		

Passagens em Território Nacional e Internacional							
Itens	**Discriminação**	**Unidades**	**Quant**	**Vl unit**	**Vl total**	**Observações**	**Anexo**
1	passagem de ida e volta: Rio de Janeiro-São Francisco (EUA)	1	1	R$ 2460,93	R$ 2460,93	passagem em classe econômica - American Arlines	Sim
			1	R$ 2460,93	R$ 2460,93		

Orçamento Resumido

ORÇAMENTO DETALHADO DE CUSTEIO				
Descrição das despesas	**Solicitado à Faperj**	**Contra Partida**	**Total por rúbrica**	**Percentual**
Serviços de Terceiros - PJ	R$ 0.00	R$ 0,00	R$ 0.00	0
Serviços de Terceiros - PF	R$ 0.00	R$ 0,00	R$ 0.00	0
Material de Consumo Nacional	R$ 0.00	R$ 0,00	R$ 0.00	0
	R$ 0.00	R$ 0,00	R$ 0.00	0
Diárias em Território Nacional e Internacional	R$ 3229,56	R$ 0,00	R$ 3229,56	56.75
Passagens em Território Nacional e Internacional	R$ 2460,93	R$ 0,00	R$ 2460,93	43.25
Despesa de importação	R$ 0.00	R$ 0,00	R$ 0.00	0
	R$ 0.00	R$ 0,00	R$ 0.00	0
	R$ 0.00	R$ 0,00	R$ 0.00	0
	R$ 0.00	R$ 0,00	R$ 0.00	0
ORÇAMENTO DETALHADO DE CAPITAL				
	R$ 0.00	R$ 0,00	R$ 0.00	0.00
	R$ 0.00	R$ 0,00	R$ 0.00	0.00
	R$ 0.00	R$ 0,00	R$ 0.00	0.00
	R$ 0.00	R$ 0,00	R$ 0.00	0.00
	R$ 0.00	R$ 0,00	R$ 0.00	0.00
	R$ 0.00	R$ 0,00	R$ 0.00	0.00
TOTAL ORÇAMENTO	R$ 5690,49	R$ 0,00	R$ 0.00	100%

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Termo de compromisso

Declaro, para fins de direito, conhecer as Normas gerais fixadas pela FAPERJ para concessão de Bolsas e Auxílios e assumo compromisso de dedicar-me às atividades de pesquisa ou ensino durante a vigência do benefício.

Local: _____Data:____/____/____

Assinatura do Proponente: _____

Concordância da instituição:

Nome:

Cargo:

Assinatura e carimbo: _____

Data de envio para Faperj: Este pedido ainda não foi enviado para Faperj.