

2nd Brazilian Workshop on Interior Point Methods

17-18 May, 2016 - Campinas, Brazil

PROGRAM

Tuesday - $17/05$		
8:30	Registration Opens	
8:45	Opening	
	Plenary Conference (Chair: Luciana Casacio)	
9:00	Continuation in optimization: from interior point methods for large-scale op-	
	timization to Big Data optimization	
	Jacek Gondzio	
10:00	Cofee-break	
Contributed Session I (Chair: Aurelio Ribeiro Leite Oliveira)		
10:30	A predictor-corrector nonlinear rescaling approach for solving nonsmooth eco-	
	nomic dispatch problems	
	Diego Nunes da Silva	
10:50	Interior point methods experiences in brazilian power system	
	Anibal Tavares de Azevedo	
11:10	The multi-objective dispatch problem by hyperbolic smoothing, progressive	
	bounded constraint strategy, and nonlinear rescaling method	
11.00	Elis Gonçalves	
11:30	A comparison of the logarithmic barrier and modified logarithmic barrier func-	
	tions in a primal-dual interior and exterior point method, with strategies for	
	determining new search directions applied to the Reactive Optimal Power Flow. Rafael Ramos de Souza	
11:50	Interior point methods for power flow optimization with security sonstraints	
11.50	Luciana Casacio	
12:10	Lunch	
12.10		
Contributed Session II (Chair: Pedro Munari)		
14:00	Strategies to compute the splitting preconditioner to solve the linear systems	
	from interior point methods	
14.00	Carla Taviane Lucke da Silva Ghidini	
14:20	Computing the splitting preconditioner for interior point method using an in-	
	complete factorization approach Marta Velazco	
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14:40	A new approach for finding a basis for the splitting preconditioner for linear
	systems from interior point methods
15:00	Porfirio Suñagua Spectral analysis of the splitting preconditioner with sparse base
15.00	Cecilia Orellana Castro
15:20	A robust and efficient proposal for solving the linear system arising in interior-
19.20	point methods for linear programming
	Danilo Elias de Oliveira
15:40	Numerical experiments with alternative linear systems for the splitting precon-
15.40	ditioner applied to interior point methods
	Fabio Rodrigues Silva
16.00	Cofee-break
16:00	
16:30	Poster Session (Chair: Daniela Cantane)
	Interior point methods applied in hydraulic network optimal operation
	Aline Maria de Lima
	Interior point primal-dual method as an alternative for estimating of parame-
	ters for stochastic context-free grammar
	Esther Sofia Mamian Lopez
	Iterative methods to solve the linear systems from interior point methods
	Igor Moreira da Silva
	A new approach for changing phases in a hybrid preconditioner for interior
	$point \ methods$
	Kelly Cadena Madrid
	A new modified version of the Controlled Cholesky Factorization for hybrid
	preconditioning of linear system arising in IPM
	Leonardo Cavalcante do Prado
	Interior point method applied to the pre-dispatch hydroelectric system with se-
	curity constraints and maneuvers
	Maria Cristina Tiemi Hamada Cogubum
	A new primal-dual method for compressed sensing problems
	Paula Aparecida Kikuchi
	The simplex method and application in radiotherapy
	Thais Reigadas Salvador
	$A\ Python/C\ library\ for\ box-constrained\ global\ optimization\ with\ continuous$
	GRASP
	Ricardo Martins de Abreu Silva



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	Wednesday - $18/05$		
	Plenary Conference II (Chair: Anibal Azevedo)		
9:00	Interior point methods and DC power systems - How to squeeze a matrix		
	Aurelio Ribeiro Leite de Oliveira		
10:00	Cofee-break		
Contributed Session III (Chair: Christiano Lyra)			
10:30	$Interior\ point\ methods\ and\ column\ generation\ for\ convex\ optimization\ problems$		
	Pedro Munari		
10:50	$Review\ of\ interior\ point\ methods\ for\ semidefinite\ programming$		
	Miguel Paredes		
11:10	Irrational cut from knapsack problem		
	Eleazar Gerardo Madriz Lozada		
11:30	Mean-variance model for portfolio selection with returns based on GARCH and		
	Random Walk		
11.20	Silvana Bocanegra		
11:50	Genetic algorithms application in reordering sparse matrices		
	Ellen Marianne Bernal Cavalheiro		
12:10	Lunch		
	Contributed Session IV (Chair: Frederico Campos)		
14:00	Influence of matrix reordering on the performance of the iterative methods for		
	solving linear systems arising from interior point methods.		
	Marta Velazco		
14:20	A heuristic to switch the preconditioned iterative linear system solver in inte-		
	rior point using Ritz values		
	Petra Maria Bartmeyer		
14:40	First efficient iterations in the primal-dual interior point method		
1200	Manolo Rodriguez Heredia		
15:00	Approximate normal equations systems in interior point methods		
15.00	Luciana Yoshie Tsuchiya		
15:20	New heuristics for a family of simple algorithms		
15.40	Jair da Silva		
15:40	Interior point method with the continued iteration Lilian Ferreira Berti		
10.00			
16:00	Cofee-break		
40.5-	Plenary Conference III (Chair: Kelly Poldi)		
16:30	Metaheuristic approaches to continuous global optimization		
	Mauricio Resende		
17:30	FAPESP		