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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Adolfo Puime Pires, Universidade Estadual do Norte Fluminense**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Numerical Simulation of Reservoir-Wellbore Coupled Flow**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Alexei Mailybaev**, Instituto Nacional de Matemática Pura e Aplicada, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Singularity in the combustion wave profile for porous media with liquid fuels**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Amaury Alvarez Cruz***, Instituto Nacional de Matemática Pura e Aplicada, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Recovering porous density distribution of activated carbon samples**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Aparecido Jesuino de Souza***, **Universidade Federal de Campina Grande**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Wave sequences for solid fuel adiabatic in-situ combustion in porous media**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Bradley James Plohr, Stony Brook University**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**The mathematical theory of three-phase porous medium flow**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Dan Marchesin***, Instituto Nacional de Matemática Pura e Aplicada, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**The wave curve method: numerical implementation**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, *Duilio Tadeu da Conceição Junior*, **Universidade Federal Rural do Rio de Janeiro**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**The random Riemann solution for the Buckley - Leverett equation**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Eduardo Cardoso de Abreu, IMECC***, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Computational methods for simulation of porous media transport phenomena**”.

Rio de Janeiro, October 21, 2014.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Fabio Pereira dos Santos, Universidade Federal do Rio de Janeiro**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Air injection rate effects in light oil recovery**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Felipe Pereira, University of Texas at Dallas**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**predictive simulation for subsurface flows**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Frederico Furtado, University of Wyoming**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**hysteretic enhancement of carbon dioxide trapping in deep aquifers**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Grigori Chapiro, Universidade Federal de Juiz de Fora**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Asymptotic approximation analysis for counterflow combustion in porous media**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **James Glimm, Stony Brook University**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: **“Front tracking for petroleum reservoirs: nonlinearity vs. dispersion and the role of heterogeneity and scaleup”**.

Rio de Janeiro, October 21, 2014.

A handwritten signature in blue ink, appearing to read 'Alexei'.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Jesus Carlos da Mota, Universidade Federal de Goiás**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Combustion fronts in a porous medium with two parallel layers**”.

Rio de Janeiro, October 21, 2014.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Johannes Bruining, Delft University of Technology**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Geochemical modeling of water flooding oil in calcite reservoirs at high carbon dioxide pressure**”.

Rio de Janeiro, October 21, 2014.

A handwritten signature in blue ink, appearing to read 'Alexei'.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Juan Carlos Galvis Arrieta, Universidad Nacional de Colombia**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: **“Recent developments in the approximation of high-contrast flow problems”**.

Rio de Janeiro, October 21, 2014.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Julio Daniel Machado Silva***, **University of Calgary**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Unusual thermal effects in Riemann solutions for two-phase flow in porous media**”.

Rio de Janeiro, October 21, 2014.

A handwritten signature in blue ink, appearing to read 'Alexei'.

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The logo for FAPERJ, featuring a stylized circular emblem with concentric lines.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Marcelo Jose Santos de Lemos***, Instituto Tecnológico de **Aeronáutica**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Advances in mathematical modeling of turbulent transport in porous media**”.

Rio de Janeiro, October 21, 2014.

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IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Marcio Arab Murad**, **Laboratório Nacional de Computação Científica**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Coupled hydro-geomechanical computational models of pre-salt reservoirs**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

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October 19-21, 2014

We hereby certify that, *Martinus van Genuchten*, **PEM - Programa de Engenharia Mecânica**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**On the scale dependency of nonequilibrium flow and contaminant transport processes.**”.

Rio de Janeiro, October 21, 2014.

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October 19-21, 2014

We hereby certify that, *Negar Khoshnevis Gargar*, **Delft University of Technology**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Combustion for enhanced recovery of light oil at medium pressures**”.

Rio de Janeiro, October 21, 2014.

A handwritten signature in blue ink, appearing to read 'Alexei'.

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October 19-21, 2014

We hereby certify that, ***Pacelli Zitha***, **Delft University of Technology**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Investigation for the recovery of medium-heavy oil by gas injection**”.

Rio de Janeiro, October 21, 2014.

A handwritten signature in blue ink, appearing to read 'Alexei'.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Panters Rodríguez Bermúdez, Esc.Eng.Industrial Metalurgica - Uff***, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: **“Using a partially-linear Koval’s type model to study the flow of supercritical CO<sub>2</sub>, water and oil in porous media: pressure-driven and buoyancy-driven flows”**.

Rio de Janeiro, October 21, 2014.

A handwritten signature in blue ink, appearing to read 'Alexei'.

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# Workshop on Porous Media

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October 19-21, 2014

We hereby certify that, ***Pavel Zenon Sejas Paz***, **Universidade Federal de Juiz de Fora**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Semi-analytical solution for microwave assisted water injection in porous media**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Raghavendra Jana***, King Abdullah Universitt of Science and **Technology**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**Incorporating topography into soil hydraulic parameter scaling algorithms**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, ***Saulo Pomponet Oliveira***, **Universidade Federal do Paraná**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: **“A spectral decomposition strategy for decoupling an integro-differential model of expansive porous media”**.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Vitor Manuel Martins de Matos, Universidade do Porto**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**On porous media flows for three components and two phases**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Wenceslau Teixeira, Embrapa - Solos**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: “**How to predict soil water holding capacity using physically based equations?**”.

Rio de Janeiro, October 21, 2014.

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# Workshop on Porous Media

IMPA, Rio de Janeiro, Brazil

October 19-21, 2014

We hereby certify that, **Wesley da Silva Pereira, Universidade Federal de Juiz de Fora**, participated in the 1st IMPA-INTERPORE Workshop on Porous Media, held at Instituto Nacional de Matemática Pura e Aplicada – IMPA, Rio de Janeiro, from October 19 to 21, 2014 and presented the following work: **“Numerical solution of in-situ combustion model using finite element method combined with nonlinear complementarity algorithm”**.

Rio de Janeiro, October 21, 2014.

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