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Template of SPE conference paper

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This paper was prepared for presentation at the SPE Reservoir Simulation Symposium held in The Woodlands, Texas, USA, 21-23 February 2011.

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Abstract

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Introduction

Introduction...

Section 1

Abbreviate and capitalize “equation”, “figure”, “reference” and “column” when followed by a number or designating letter. Do not abbreviate “table”, “appendix” or “page”. Use Eq. 1, Fig. 1 or Figs. 1 and 2, Table 1 and Appendix A.

When a figure is cited for the first time and happens to be in parentheses, both the figure number and the parentheses should be bold, along with any punctuation that immediately follows the parentheses (**Fig. 1**). If a figure is cited for the first time and is enclosed in parentheses along with additional text, then ONLY the figure designation should be bold, not the parentheses or any following punctuation (see data in **Fig. 1**). Bold the first reference to a portion of a multipartite figure (**Fig. 2a**), but leave subsequent references to other parts in normal type.



Figure 1: Example of figure.



Figure 2: Example of multiple figures (use subfig package).

Conclusions

We presented an application of...

Acknowledgements

The support of the member companies of The University of Tulsa Petroleum Reservoir Exploitation Projects (TUPREP) is gratefully acknowledged.

Nomenclature

y	=	state vector
m	=	vector of model parameters
p	=	vector of primary variables
d	=	vector of predicted data
d_{obs}	=	vector of observed data
d_{uc}	=	vector of perturbed observations
$g(m)$	=	vector of predicted data
C_Y	=	state covariance matrix
C_{YD}	=	cross-covariance between state and predicted data
C_{MD}	=	cross-covariance between model parameters and predicted data
C_{PD}	=	cross-covariance between primary variables and predicted data
C_{DD}	=	auto-covariance of predicted data
C_D	=	covariance matrix of measurement errors
H	=	augmented matrix for EnKF
K	=	Kalman gain matrix
ρ	=	correlation matrix for localization
N_d	=	total number of observed data (all times)
N_n	=	number of observed data at n th data assimilation step
N_m	=	number of model parameters
N_p	=	number of reservoir simulator primary variables
N_y	=	size of the state vector. $N_y = N_m + N_p + N_n$
N_e	=	number of ensemble members
N_g	=	number of active gridblocks
$O_d(m)$	=	likelihood objective function
$O_N(m)$	=	normalized likelihood objective function

Subscripts

n	=	data assimilation step number
j	=	ensemble member

Superscripts

n	=	data assimilation step number
a	=	analysis
f	=	forecast

References