

Partição de Chuva convectiva e Estratiforme em um sistema de ZCAS

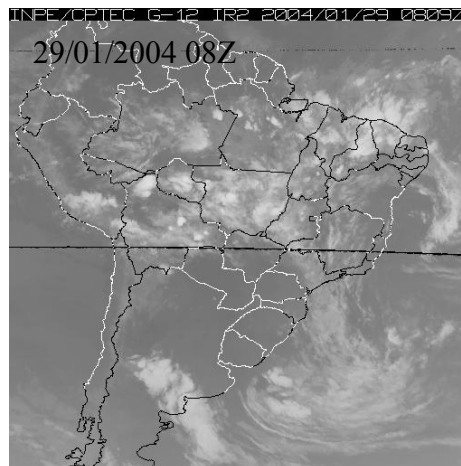
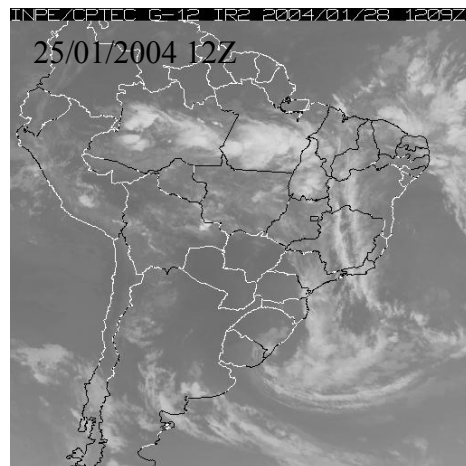
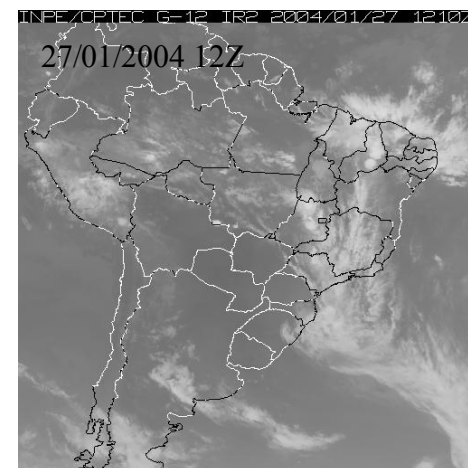
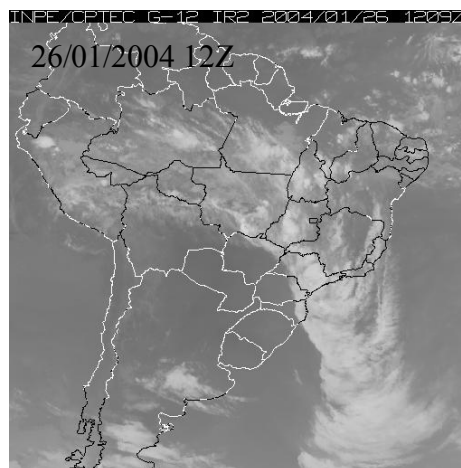
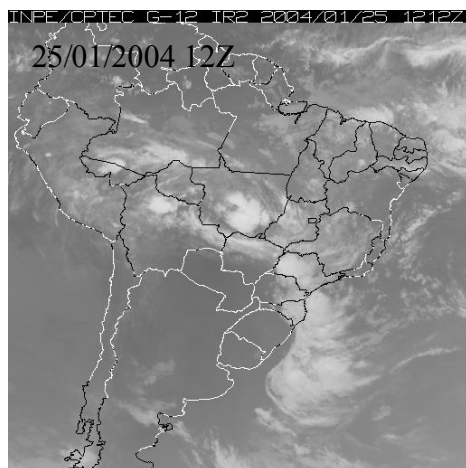
Jorge Luís Gomes
CPTEC/INPE

ZCAS 25-29/01/2004

- “A banda de nebulosidade apresentou uma configuração bastante meridional e proporcionou significativo aumento das chuvas no sudeste do Brasil. Em São Paulo, foram registrados vários alagamentos na região metropolitana.”

II WORKETA

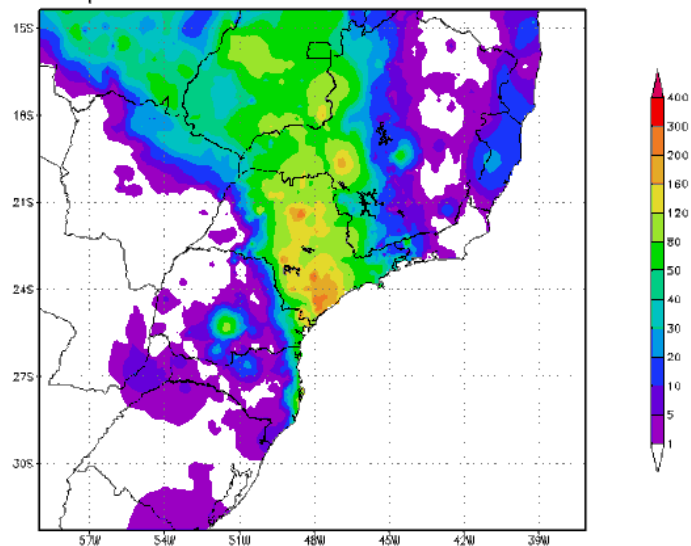
II WORKSHOP EM MODELAGEM REGIONAL DE TEMPO E CLIMA UTILIZANDO O MODELO ETA: ASPECTOS FÍSICOS E NUMÉRICOS



Observações

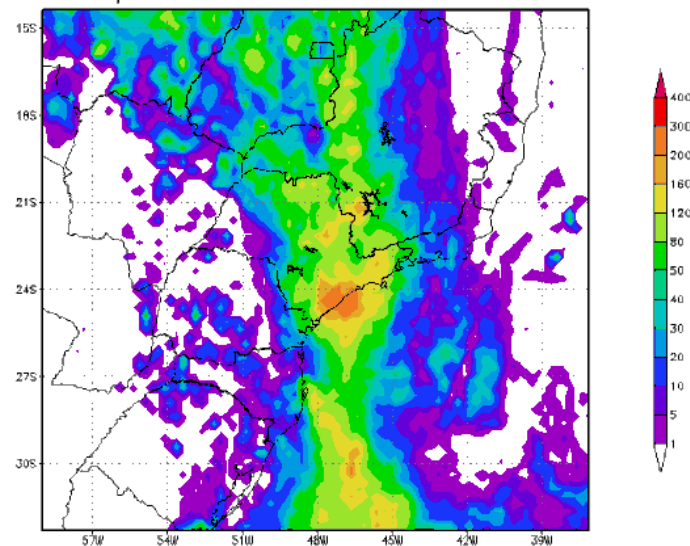
Synop

Precipitacao Observada Acumulada em 4 dias



TRIMM

Precipitacao Trimm Acumulada em 4 dias



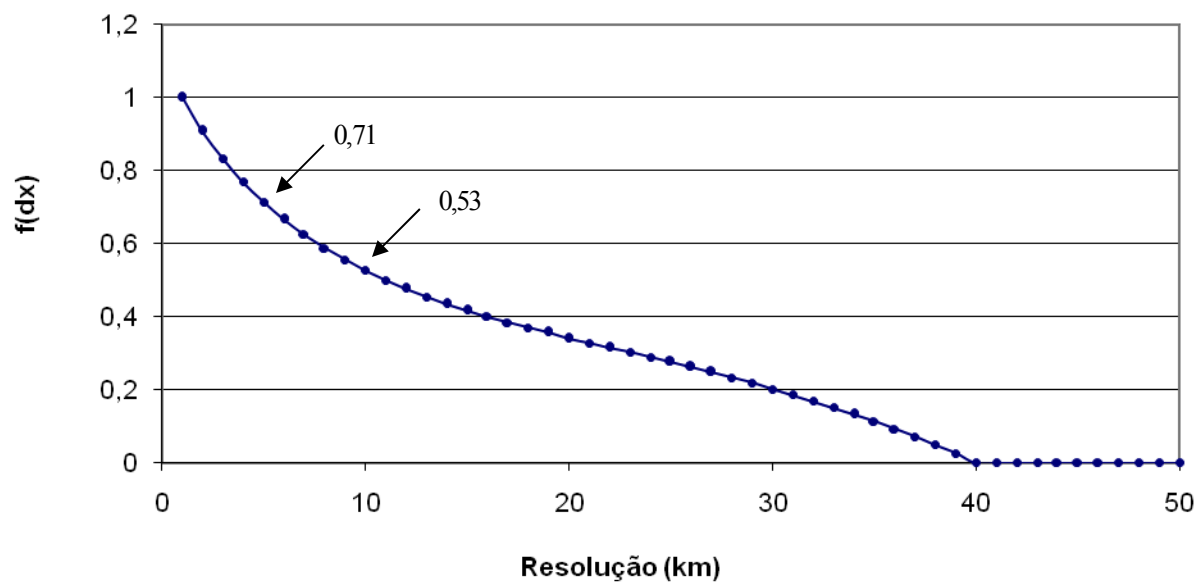
Configuração do Modelo Eta

- Resolução Horizontal: 10 e 5 km
- Resolução Vertical: 38 e 50 níveis
- CI: Análise NCEP T126L28
- CC: Análise NCEP T126L28
- Esquemas de Convecção: BMJ, KF, Nenhuma

Esquema KF $\Rightarrow$ Precipitação excessiva

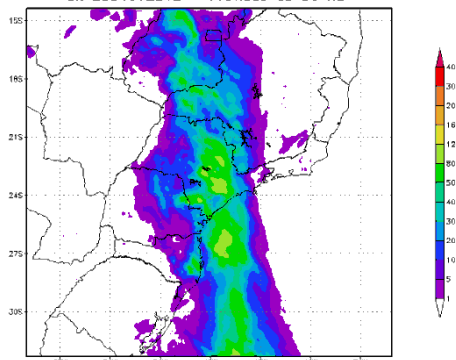
Função de atenuação em função da resolução horizontal

Função de Atenuação da Precipitação Gerada pelo Esquema KF

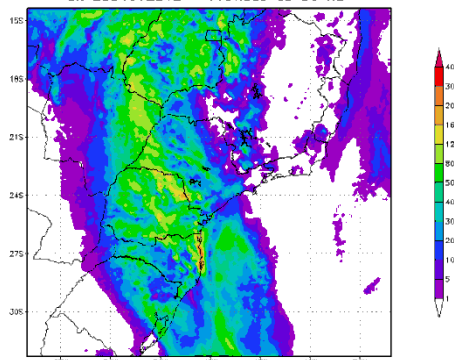


KF Controle

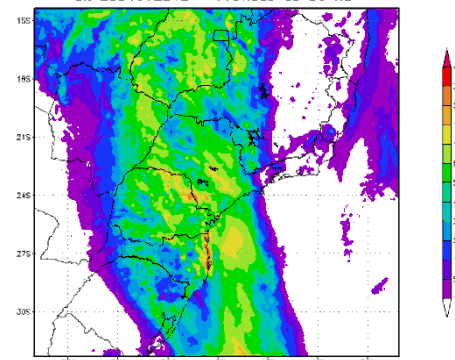
Precipitação Estr. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



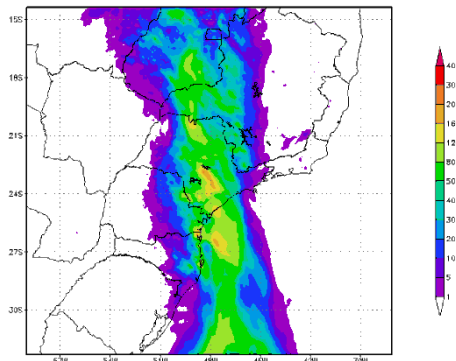
Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



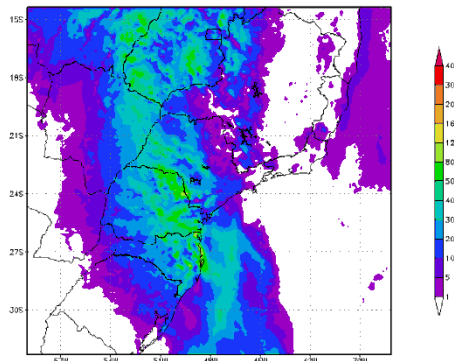
10 km

KF Exp1

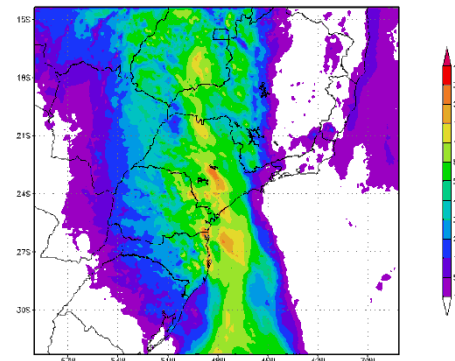
Precipitação Estr. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

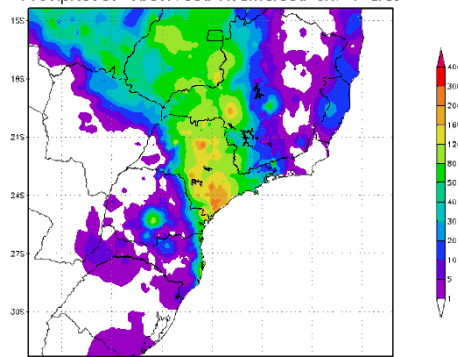


Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



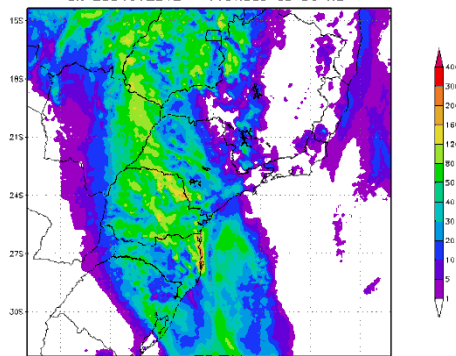
Observações

Precipitação Observada Acumulada em 4 dias

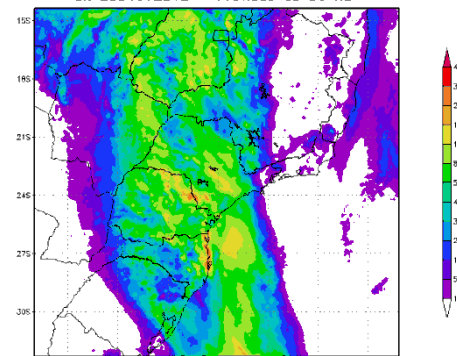


KF Controle

Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



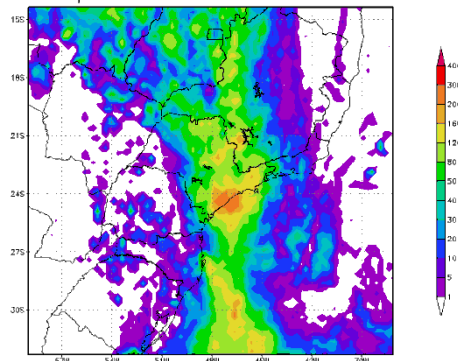
Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



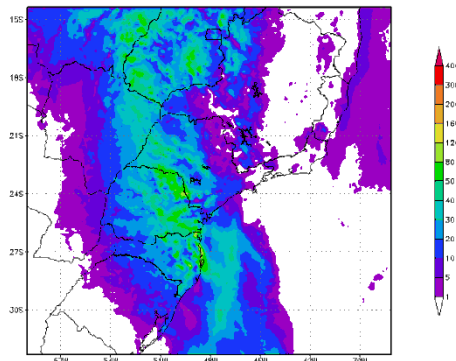
10 km

KF Exp1

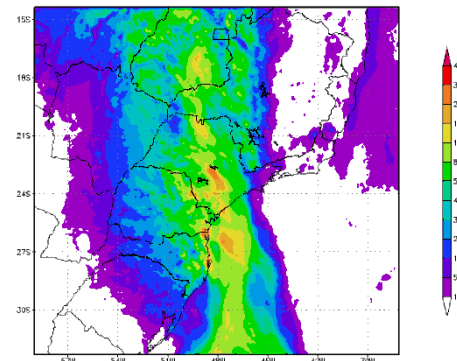
Precipitação Trimm Acumulada em 4 dias



Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

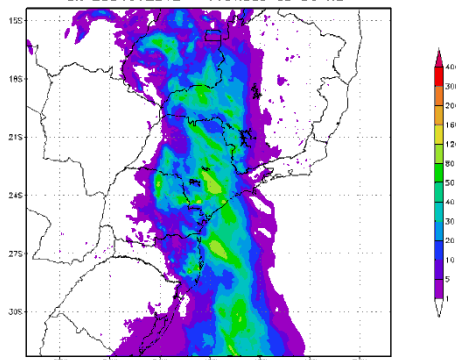


Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

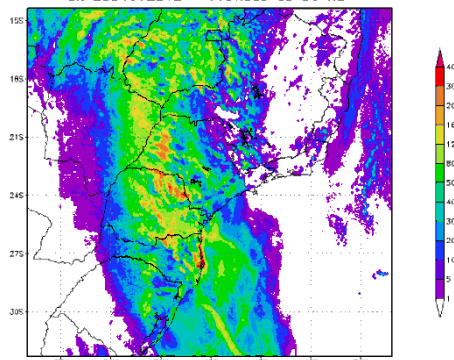


KF Controle

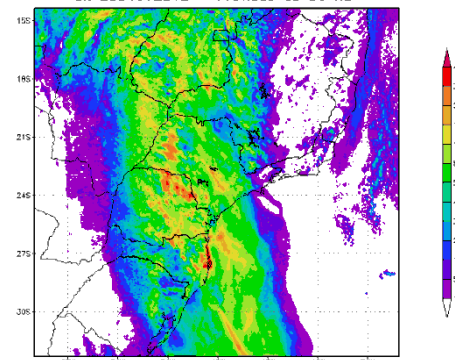
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Cl: 2004012512 – Previsão de 96 Hs



Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



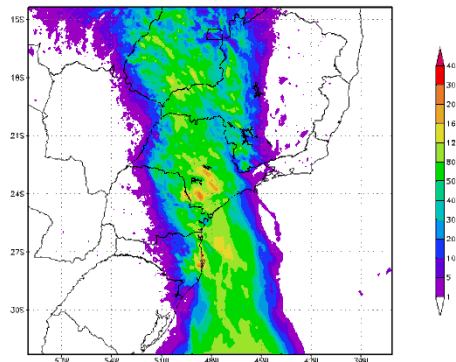
Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



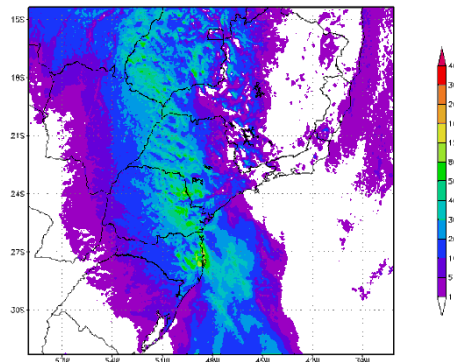
5 km

KF Exp1

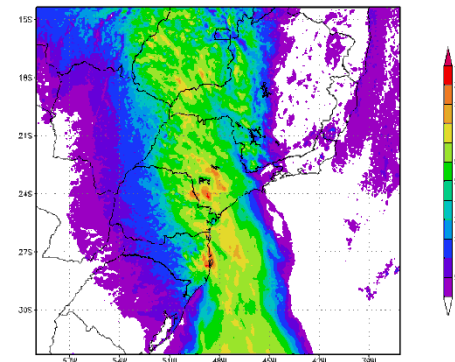
Precipitação Estr. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

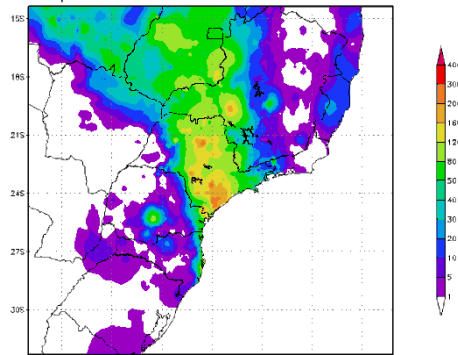


II WORKETA

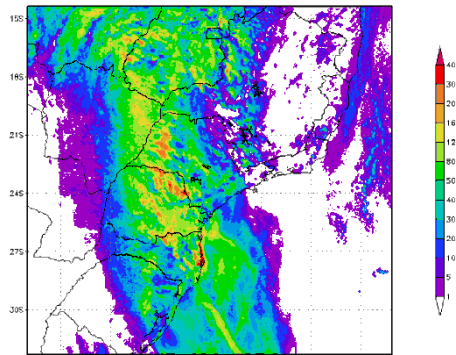
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KF Controle

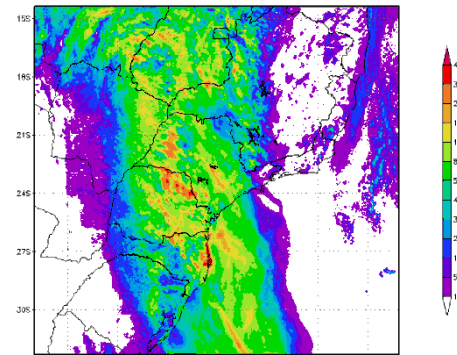
Precipitacao Observada Acumulada em 4 dias



Precipitacao Conv. Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



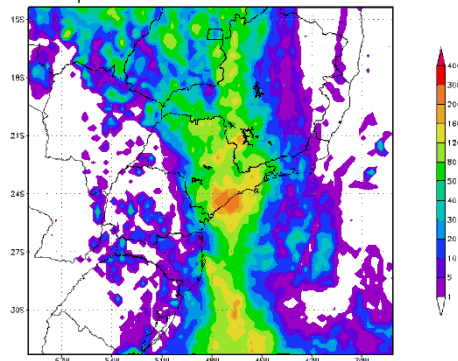
Precipitacao Total Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



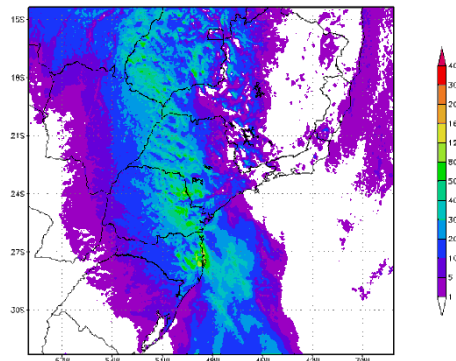
5 km

KF Exp1

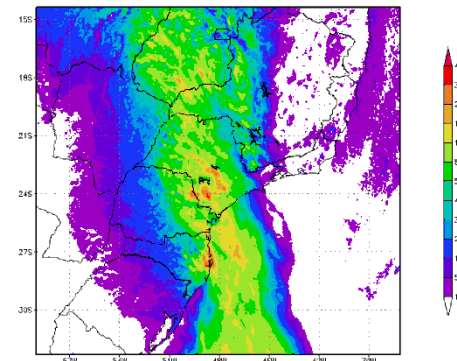
Precipitacao Trimm Acumulada em 4 dias



Precipitacao Conv. Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



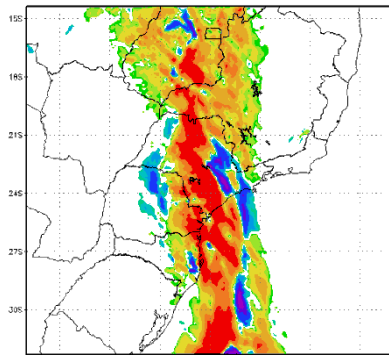
Precipitacao Total Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



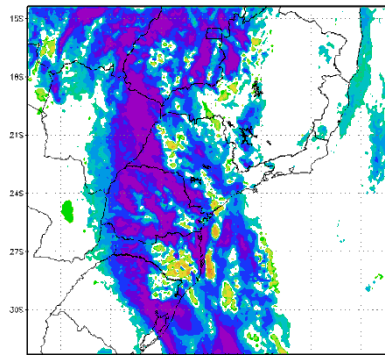
10 km

KF Exp1 - KF Controle

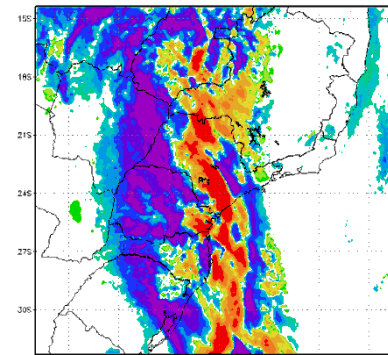
Prec. Estr. Acum. em 4 dias - Dif. kfexp1 kfcntrl
Cl: 2004012512 - Previsão de 96 Hs



Prec. Conv. Acum. em 4 dias - Dif. kfexp1 kfcntrl
Cl: 2004012512 - Previsão de 96 Hs



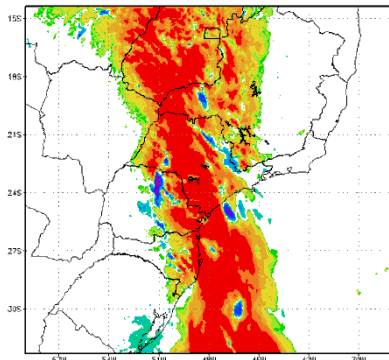
Prec. Total Acum. em 4 dias - Dif. kfexp1 kfcntrl
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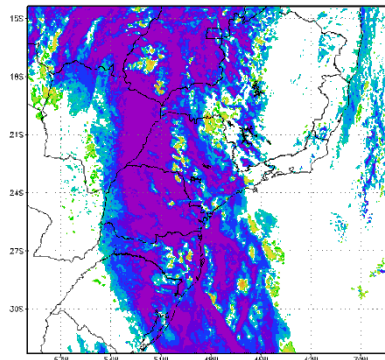
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KF Exp1 - KF Controle

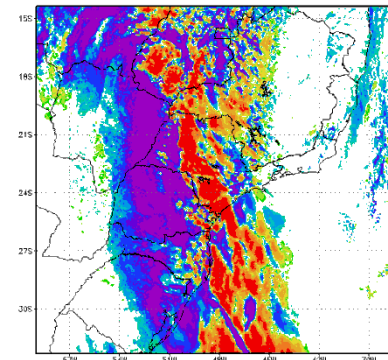
Prec. Estr. Acum. em 4 dias - Dif. kfexp1 kfcntrl
Cl: 2004012512 - Previsão de 96 Hs



Prec. Conv. Acum. em 4 dias - Dif. kfexp1 kfcntrl
Cl: 2004012512 - Previsão de 96 Hs

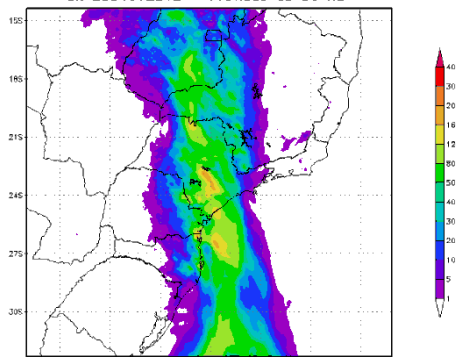


Prec. Total Acum. em 4 dias - Dif. kfexp1 kfcntrl
Cl: 2004012512 - Previsão de 96 Hs

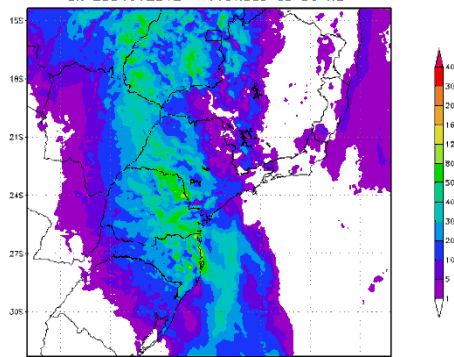


KF Exp1

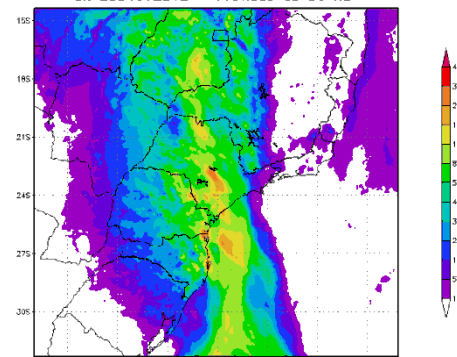
Precipitacao Estr. Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



Precipitacao Conv. Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



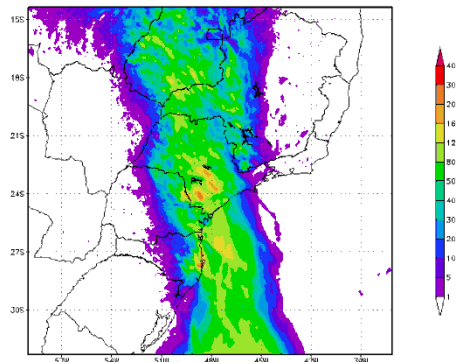
Precipitacao Total Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



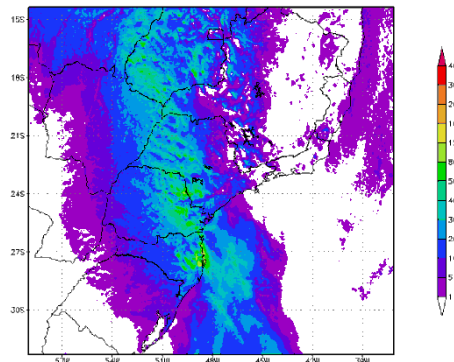
10 km

KF Exp1

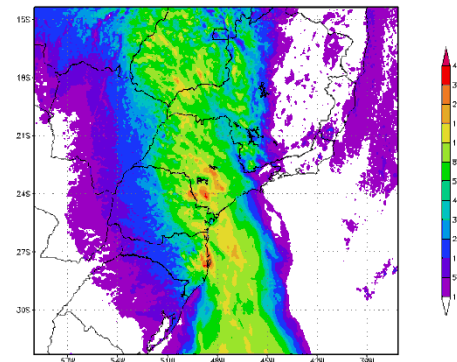
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Precipitacao Conv. Acumulada em 4 dias
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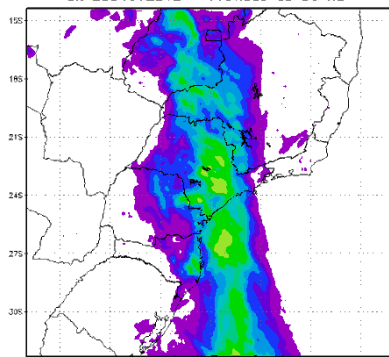
Precipitacao Total Acumulada em 4 dias
Cl: 2004012512 - Previsao de 96 Hs



5 km

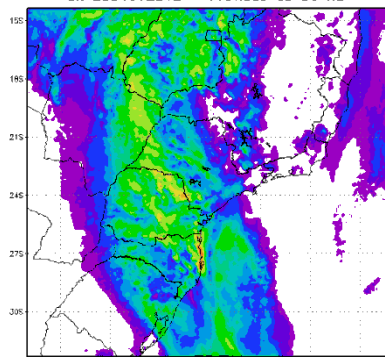
KF Controle

Precipitação Estr. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

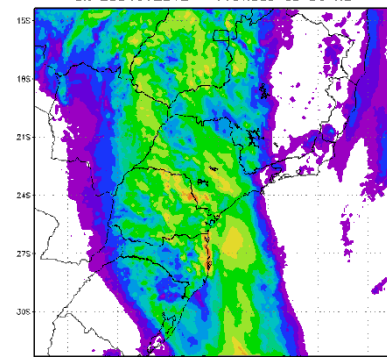


10 km

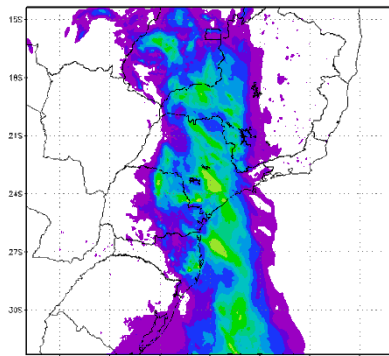
Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

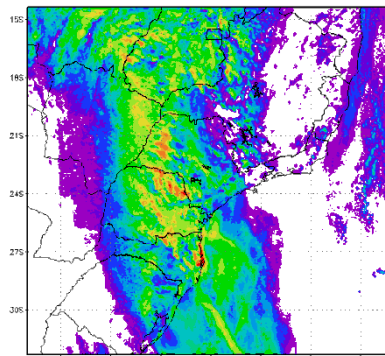


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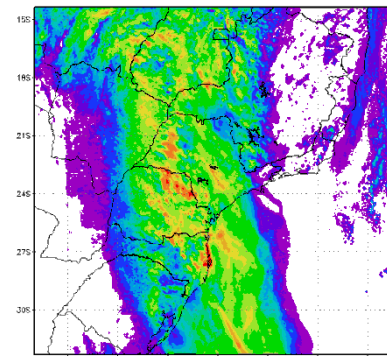


5 km

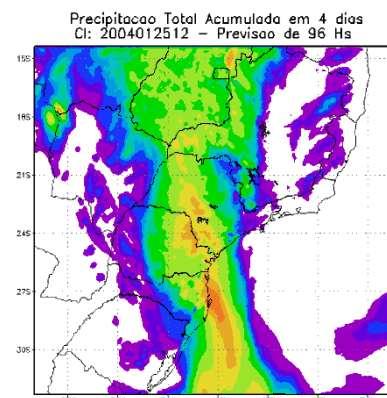
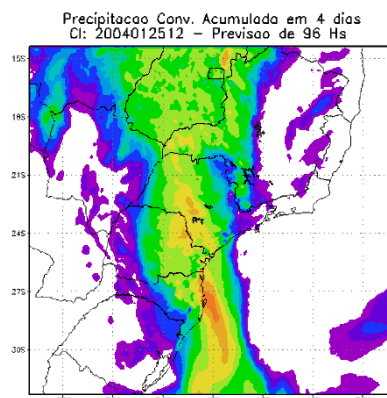
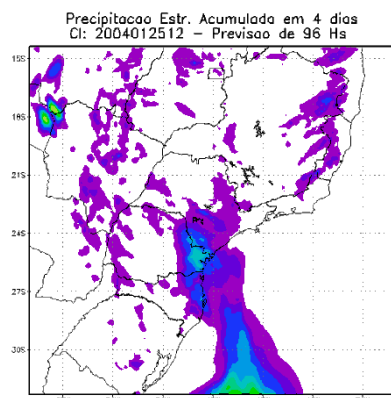
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Cl: 2004012512 – Previsão de 96 Hs



Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

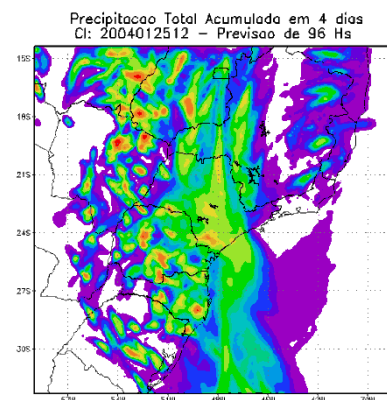
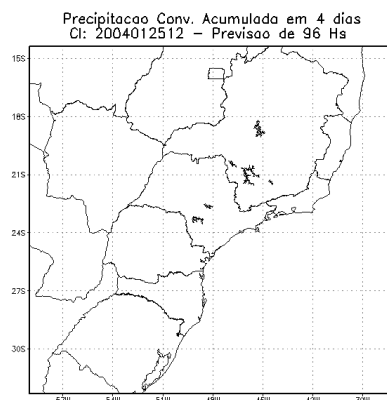
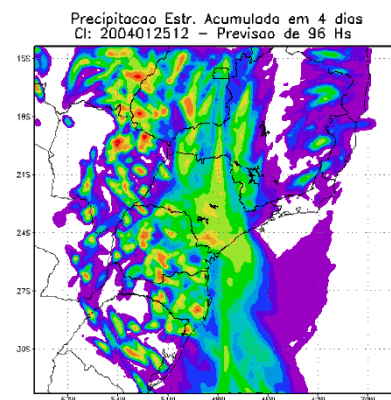


BM Controle



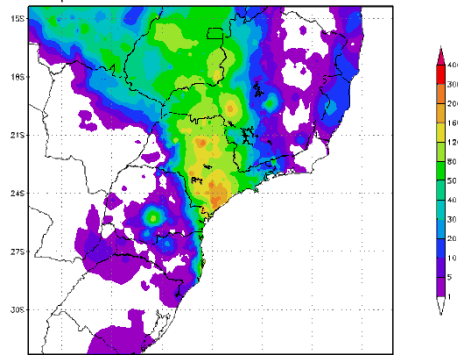
10 km

NCUPARM



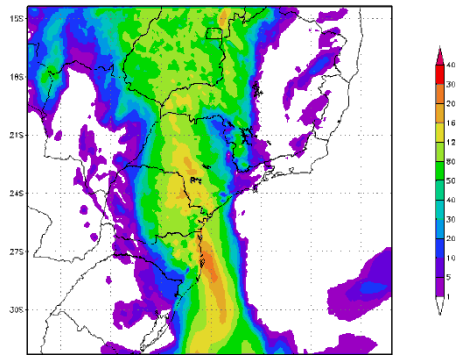
Observações

Precipitação Observada Acumulada em 4 dias

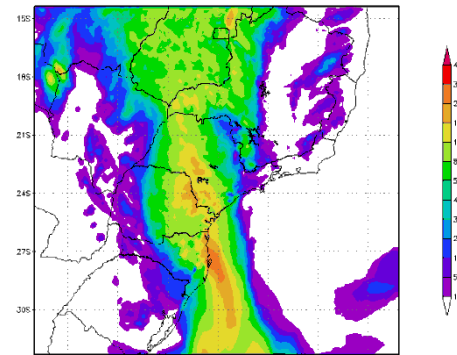


BM Controle

Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



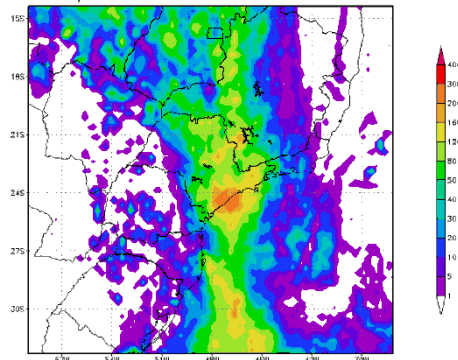
Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



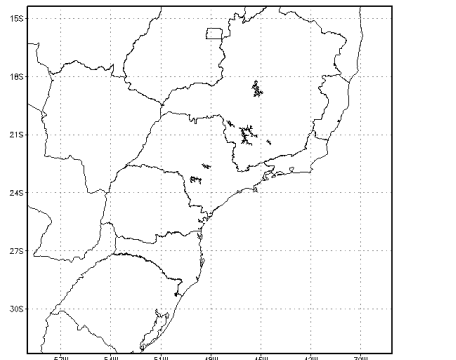
10 km

NCUPARM

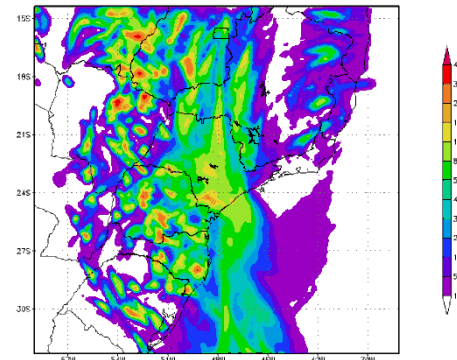
Precipitação Trimm Acumulada em 4 dias



Precipitação Conv. Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs



Precipitação Total Acumulada em 4 dias
Cl: 2004012512 – Previsão de 96 Hs

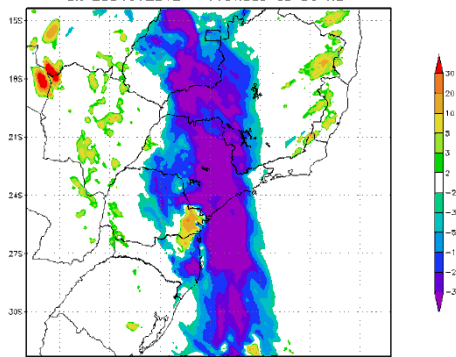


II WORKETA

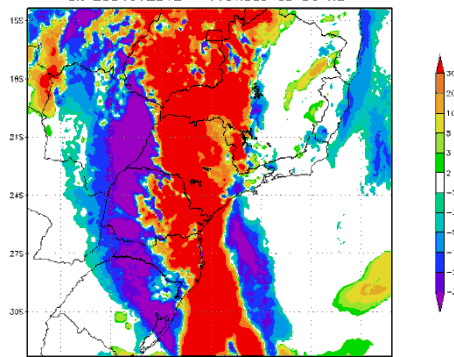
II WORKSHOP EM MODELAGEM REGIONAL DE TEMPO E CLIMA UTILIZANDO O MODELO ETA: ASPECTOS FÍSICOS E NUMÉRICOS

BM Controle – KF Controle

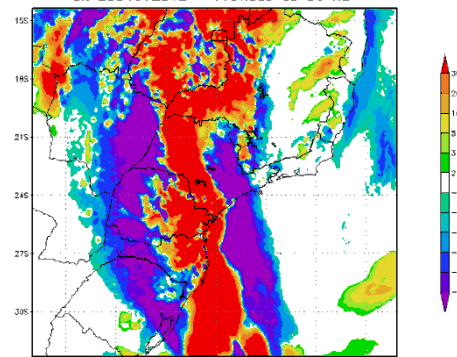
Prec. Estr. Acum. em 4 dias – Dif. bmcntrl kfcntrl
Cl: 2004012512 – Previsão de 96 Hs



Prec. Conv. Acum. em 4 dias – Dif. bmcntrl kfcntrl
Cl: 2004012512 – Previsão de 96 Hs



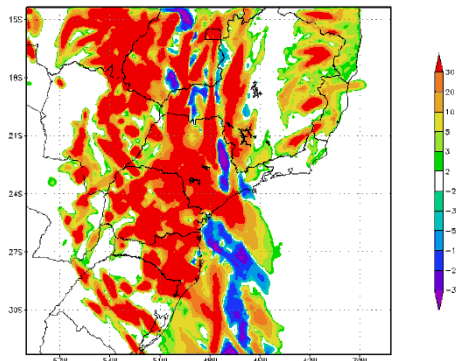
Prec. Total Acum. em 4 dias – Dif. bmcntrl kfcntrl
Cl: 2004012512 – Previsão de 96 Hs



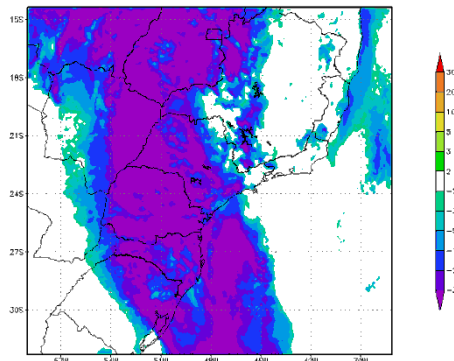
10 km

KF Controle - NCUPARM

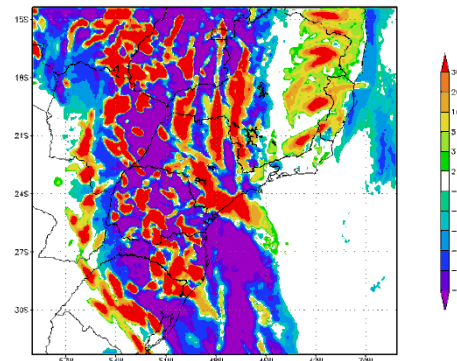
Prec. Estr. Acum. em 4 dias – Dif. nacuparm kfcntrl
Cl: 2004012512 – Previsão de 96 Hs



Prec. Conv. Acum. em 4 dias – Dif. nacuparm kfcntrl
Cl: 2004012512 – Previsão de 96 Hs



Prec. Total Acum. em 4 dias – Dif. nacuparm kfcntrl
Cl: 2004012512 – Previsão de 96 Hs



Obrigado