Feedback and Sensitivity in Climate

Alain Lahellec

12th June 2009

Outline

Outline

Make Titles Informative. Use Uppercase Letters.

Subtitles are optional.

- Use `itemize` a lot.
- Use very short sentences or short phrases.

Make Titles Informative.

You can create overlays...

- using the `pause` command:

$$\begin{cases} \partial_t \boldsymbol{\sigma_0}(t) = M^\flat \boldsymbol{\sigma_0}(t,0) + |b> \Upsilon(t) \\ g(t) = <c|\, \boldsymbol{\sigma_0}(t,0)\,, \end{cases} \tag{1}$$

$$\Delta\theta(t) = <c(t)|\, \Phi(t,0)\acute{}\boldsymbol{\eta}_0^r + <c|\,(t) \int_0^t \Phi(t,\tau)|b>(\tau)\Delta\theta_0(\tau)d\tau \tag{2}$$

- using overlay specifications:
  - First item.
  - Second item.
- with the definition of the propagator as:

$$\partial_t \Phi(t,\tau) = M(t)\Phi(t,\tau)\,; \quad \Phi(\tau,\tau) = I\,, \tag{3}$$

with the identity matrix I.

Make Titles Informative.

You can create overlays...

- using the `pause` command:

$$\begin{cases} \partial_t \boldsymbol{\sigma_0}(t) = M^\flat \boldsymbol{\sigma_0}(t,0) + |b> \Upsilon(t) \\ g(t) = <c| \, \boldsymbol{\sigma_0}(t,0)\,, \end{cases} \tag{1}$$

$$\Delta\theta(t) = <c(t)| \, \Phi(t,0)\acute{}\boldsymbol{\eta}_0^r + <c| \, (t) \int_0^t \Phi(t,\tau)|b> (\tau)\Delta\theta_0(\tau)d\tau \tag{2}$$

- using overlay specifications:
  - First item.
  - Second item.
- with the definition of the propagator as:

$$\partial_t \Phi(t,\tau) = M(t)\Phi(t,\tau)\,; \quad \Phi(\tau,\tau) = I\,, \tag{3}$$

with the identity matrix I.

Make Titles Informative.

You can create overlays...

- using the `pause` command:

$$\begin{cases} \partial_t \boldsymbol{\sigma_0}(t) = M^\flat \boldsymbol{\sigma_0}(t,0) + |b> \Upsilon(t) \\ g(t) = <c| \, \boldsymbol{\sigma_0}(t,0)\,, \end{cases} \tag{1}$$

$$\Delta\theta(t) = <c(t)| \, \Phi(t,0)\acute{}\boldsymbol{\eta}_0^r + <c| \, (t) \int_0^t \Phi(t,\tau)|b> (\tau)\Delta\theta_0(\tau)d\tau \tag{2}$$

- using overlay specifications:
  - First item.
  - Second item.
- with the definition of the propagator as:

$$\partial_t \Phi(t,\tau) = M(t)\Phi(t,\tau)\,; \quad \Phi(\tau,\tau) = I\,, \tag{3}$$

with the identity matrix I.

Make Titles Informative.

You can create overlays...

- using the `pause` command:

$$\begin{cases} \partial_t \boldsymbol{\sigma_0}(t) = M^\flat \boldsymbol{\sigma_0}(t,0) + |b> \Upsilon(t) \\ g(t) = <c| \, \boldsymbol{\sigma_0}(t,0)\,, \end{cases} \tag{1}$$

$$\Delta\theta(t) = <c(t)| \, \Phi(t,0)\acute{}\boldsymbol{\eta}_0^r + <c| \, (t) \int_0^t \Phi(t,\tau)|b> (\tau)\Delta\theta_0(\tau)d\tau \tag{2}$$

- using overlay specifications:
  - First item.
  - Second item.
- with the definition of the propagator as:

$$\partial_t \Phi(t,\tau) = M(t)\Phi(t,\tau)\,; \quad \Phi(\tau,\tau) = I\,, \tag{3}$$

with the identity matrix I.

Make Titles Informative.

You can create overlays...

- using the `pause` command:

$$\begin{cases} \partial_t \boldsymbol{\sigma_0}(t) = M^\flat \boldsymbol{\sigma_0}(t,0) + |b> \Upsilon(t) \\ g(t) = <c| \, \boldsymbol{\sigma_0}(t,0)\,, \end{cases} \tag{1}$$

$$\Delta\theta(t) = <c(t)| \, \Phi(t,0)\acute{}\boldsymbol{\eta}_0^r + <c| \, (t) \int_0^t \Phi(t,\tau)|b> (\tau)\Delta\theta_0(\tau)d\tau \tag{2}$$

- using overlay specifications:
  - First item.
  - Second item.
- with the definition of the propagator as:

$$\partial_t \Phi(t,\tau) = M(t)\Phi(t,\tau)\,; \quad \Phi(\tau,\tau) = I\,, \tag{3}$$

with the identity matrix I.

Make Titles Informative.

You can create overlays...

- using the `pause` command:

$$\begin{cases} \partial_t \boldsymbol{\sigma_0}(t) = M^\flat \boldsymbol{\sigma_0}(t,0) + |b> \Upsilon(t) \\ g(t) = <c| \, \boldsymbol{\sigma_0}(t,0)\,, \end{cases} \tag{1}$$

$$\Delta\theta(t) = <c(t)| \, \Phi(t,0)\acute{}\boldsymbol{\eta}_0^r + <c| \, (t) \int_0^t \Phi(t,\tau)|b> (\tau)\Delta\theta_0(\tau)d\tau \tag{2}$$

- using overlay specifications:
  - First item.
  - Second item.
- with the definition of the propagator as:

$$\partial_t \Phi(t,\tau) = M(t)\Phi(t,\tau)\,; \quad \Phi(\tau,\tau) = I\,, \tag{3}$$

with the identity matrix I.

Outline

ps2pdf OK.

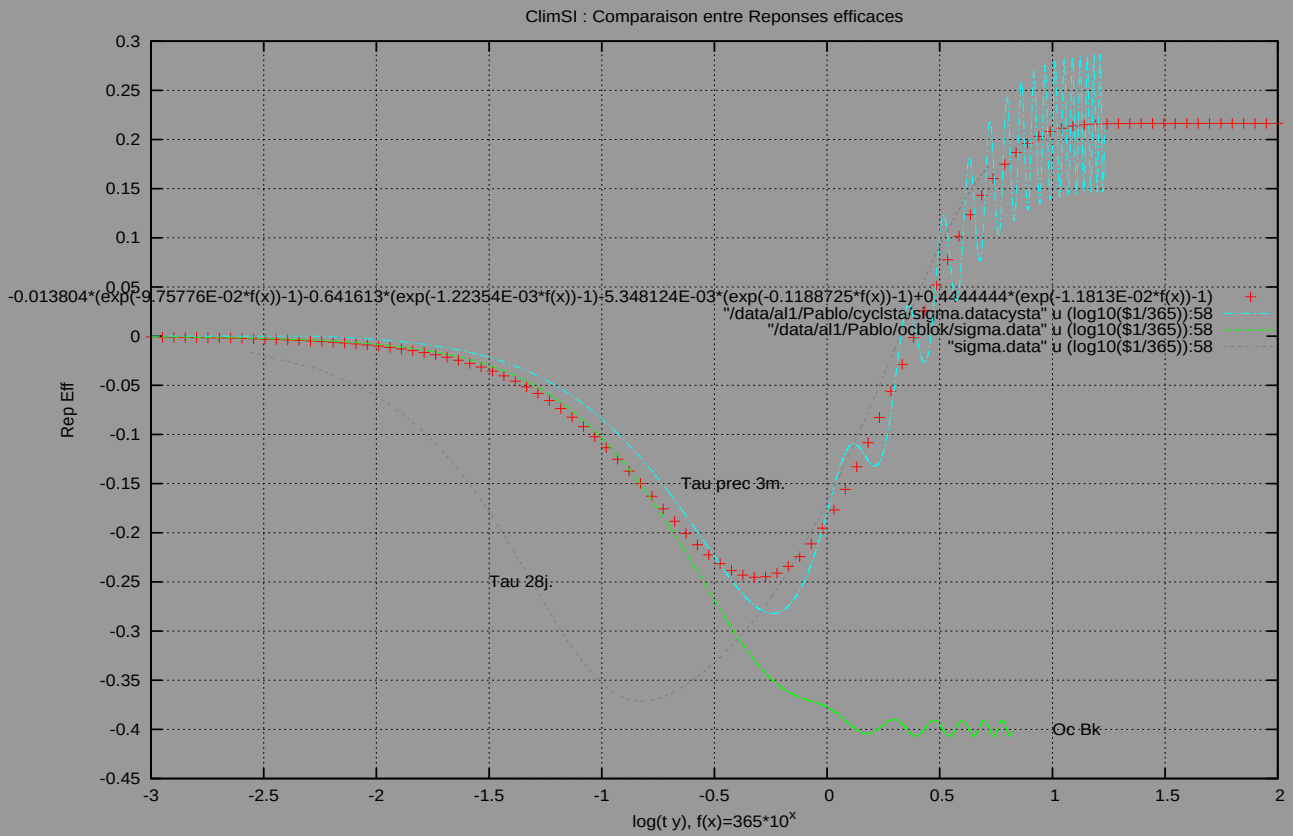
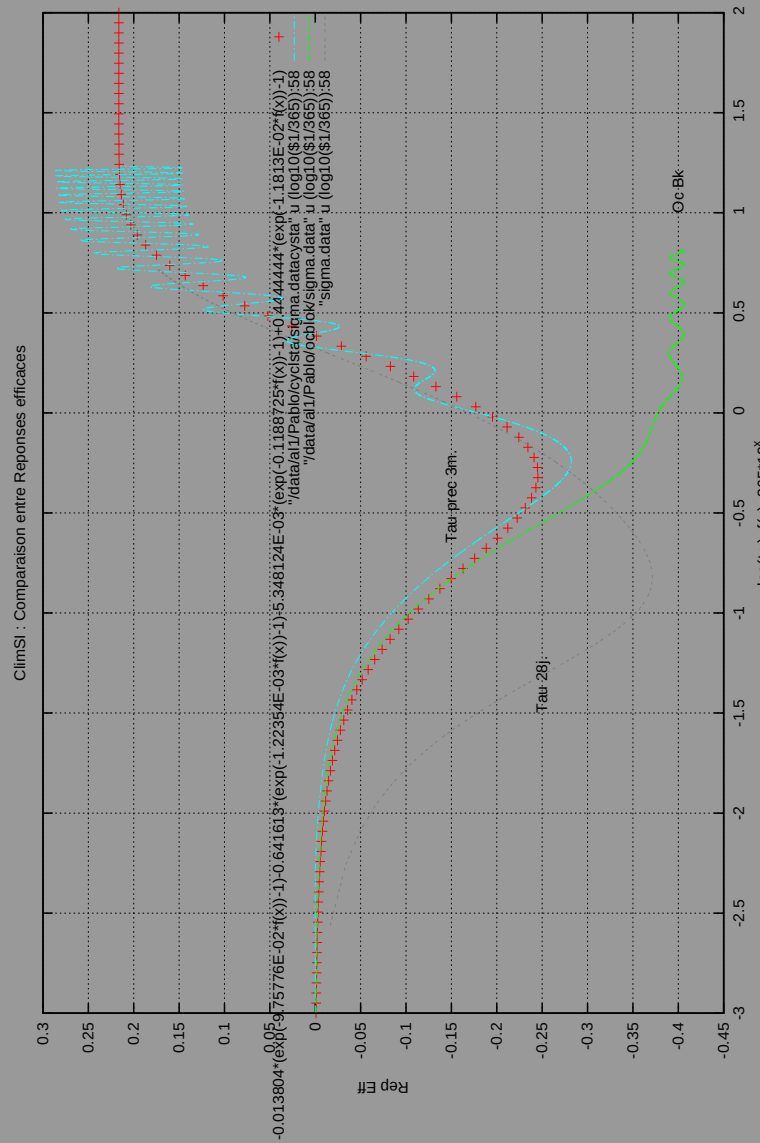


Figure: ClimSI WV feedback model responses.

Essai avec pgfuse.



Outline

Make Titles Informative.

Make Titles Informative.

Make Titles Informative.

Outline

Make Titles Informative.

Make Titles Informative.

Make Titles Informative.

Summary

- The first main message of your talk in one or two lines.
- The second main message of your talk in one or two lines.
- Perhaps a third message, but not more than that.

- Outlook
  - Something you haven’t solved.
  - Something else you haven’t solved.

For Further Reading I


A. Author.
Handbook of Everything.
Some Press, 1990.


S. Someone.
On this and that.
Journal of This and That, 2(1):50–100, 2000.