

# Busy 1.1 A Mathematica® Package for Bayesian, Risk, and Second-Order Distributions



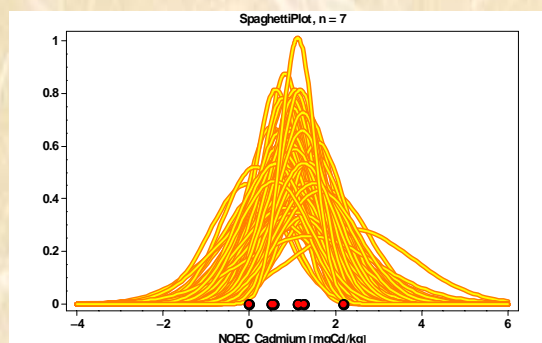
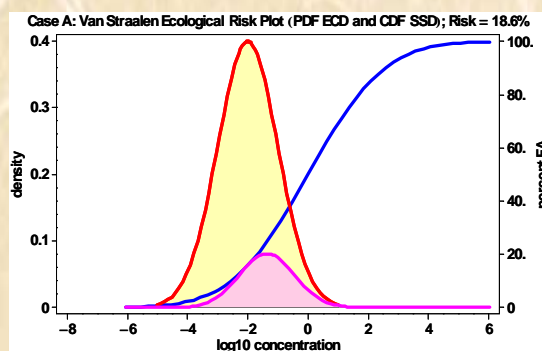
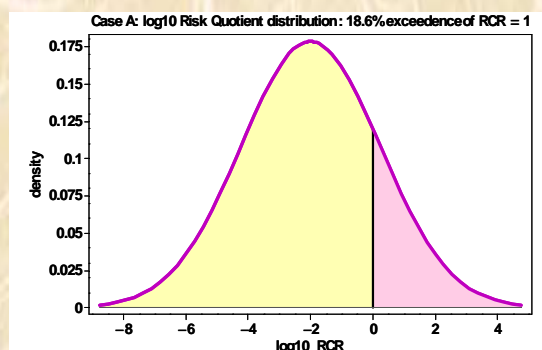
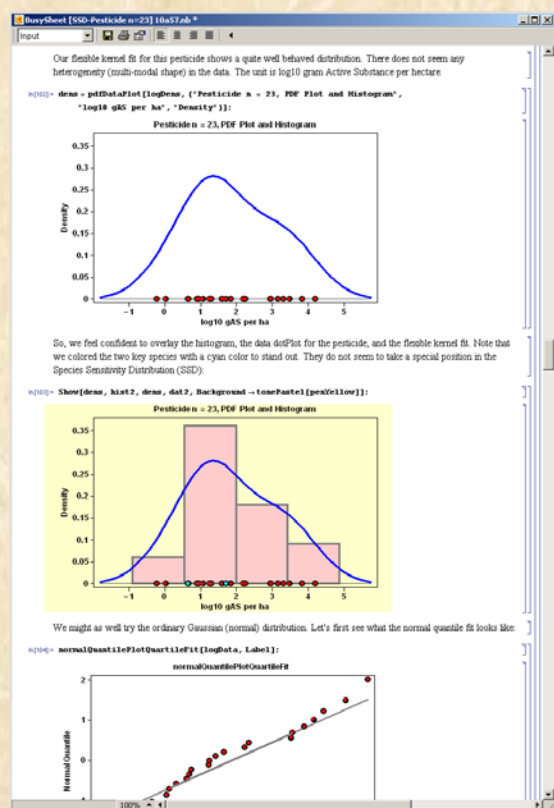
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**Busy** has been developed as a Tool for Probabilistic Uncertainty Analysis in Environmental Risk Assessment of Chemicals as a project for *The Long-range Research Initiative* (LRI) of the European Chemical Industry Council (CEPIC), co-sponsored by the American Chemistry Council (ACC).

**Busy** applies to problems of risk assessment of chemicals, and focuses on the calculation of the Expected (Ecological) Risk and its uncertainty to biological species when exposed to chemicals. Specifically, **Busy** deals with univariate Exposure distributions and Species Sensitivity Distributions, and addresses their second-order uncertainty.

**Busy** makes extensive use of the Mathematica Notebook interface, that are live documents with explanatory notes, preprogrammed computer code, and graphical output. In the near future, **Busy** can be run over the web through a browser.



Aldenberg, T., and J.S. Jaworska (2000) Uncertainty of the hazardous concentration and fraction affected for Normal Species Sensitivity Distributions. *Ecotoxicology and Environmental Safety*, 46, 1–18.

Aldenberg, T., J.S. Jaworska, and T.P. Traas (2002) Normal species sensitivity distributions and probabilistic ecological risk assessment. In: *Species Sensitivity Distributions in Ecotoxicology* (L. Posthuma, G.W. Suter II, and T.P. Traas, eds.), Lewis Publishers, pp. 49–102.

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