

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



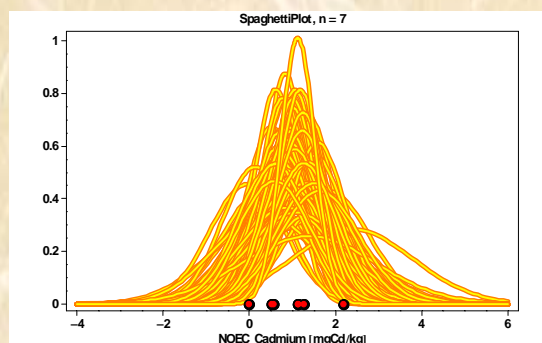
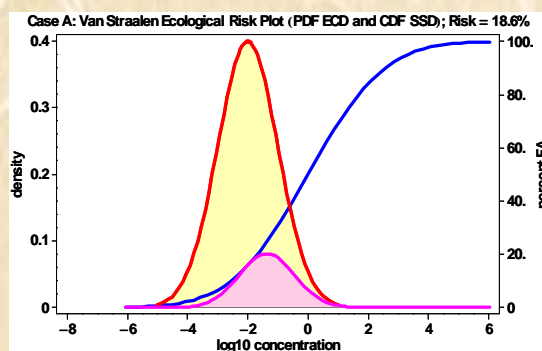
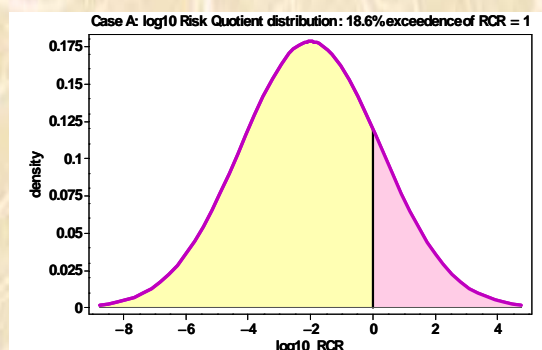
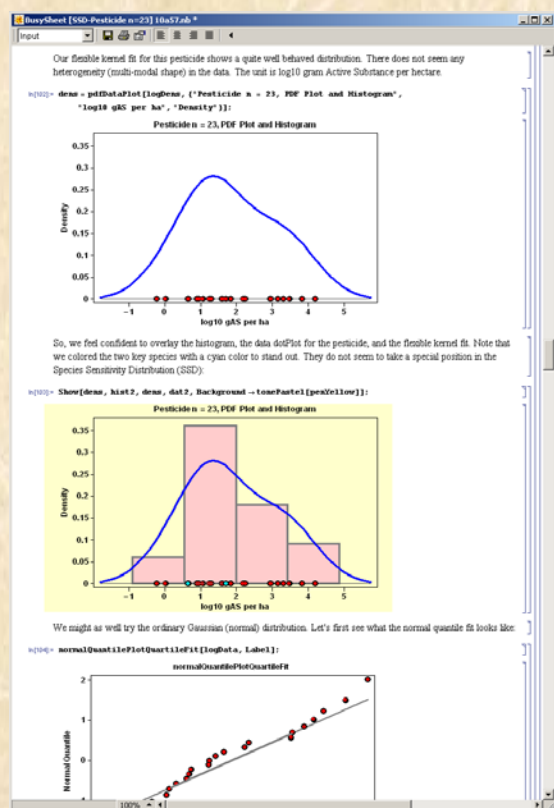
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Busy has been developed as a Tool for Probabilistic Uncertainty Analysis in Environmental Risk Assessment of Chemicals as a project for *The Long-range Research Initiative* (LRI) of the European Chemical Industry Council (CEPIC), co-sponsored by the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