A sample LaTeX file in the form of an article

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1 Introduction

If the total deposition rate for all the deposition surfaces is R_A mol/s, the volumetric flow of each species is q_A and q_B m^3/s, M is the number of moles of gas species in the reactor (constant under these assumptions), q is the volumetric flow of gas out of the reactor, ρ_m is the molar density (mol/m^3), and the reactor gas species mole fractions are x_A and x_B, a material balance over the reactor gives

$$\begin{aligned} M\frac{dx_A}{dt} &= q_A(t)\rho_m - q\rho_m x_A - R_A \\ M\frac{dx_B}{dt} &= q_B(t)\rho_m - q\rho_m x_B \end{aligned}$$

Figure 1 has nothing to do with this derivation. Neither does [1] nor (1) below.

$$x = \int_{t=0}^{2} f(t)\,dt \tag{1}$$

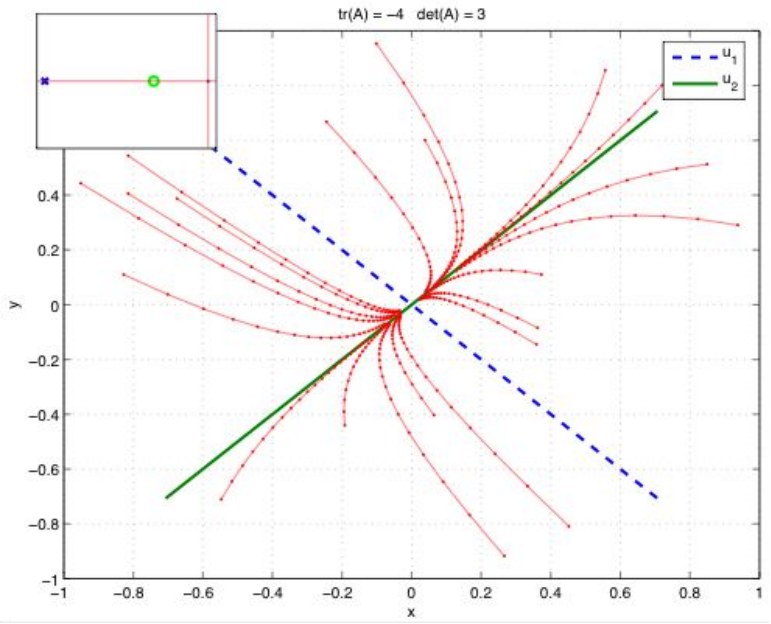

Figure 1: *A phase plane.*

References

[1] R. A. Adomaitis, Identification of a deposition rate profile subspace corresponding to spatially-uniform films in planetary CVD reactors: a new criterion for uniformity control, *Comp. & Chem. Engng* **29** 829-837 (2005).