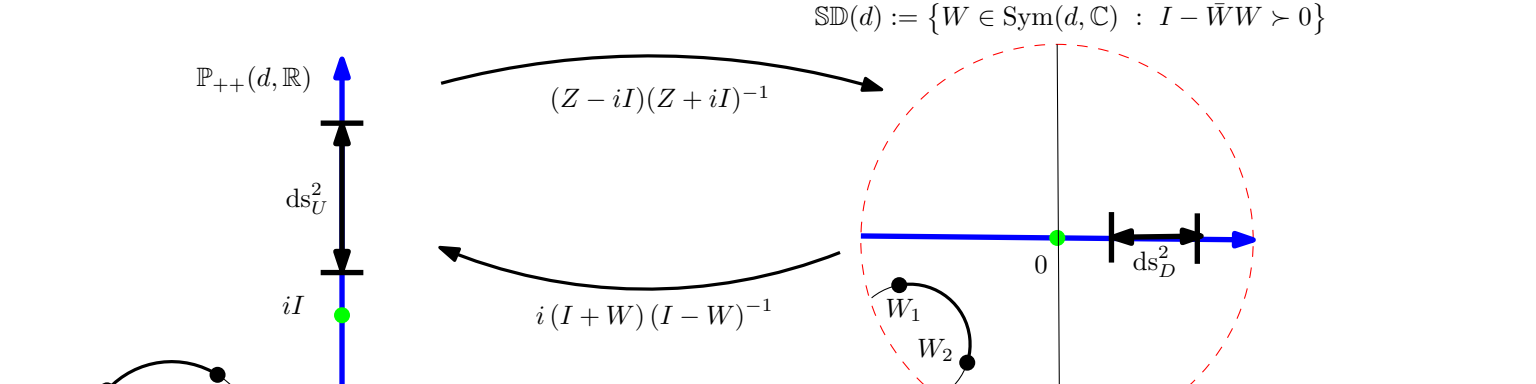

$$\mathrm{ds}_U^2(Z) = 2\mathrm{tr}\left(Y^{-1}\mathrm{d}Z\ Y^{-1}\mathrm{d}\bar{Z}\right)$$

$$\rho_U(Z_1,Z_2) = \sqrt{\sum_{i=1}^{d} \log^2\left(\tfrac{1+\sqrt{r_i}}{1-\sqrt{r_i}}\right)}$$

$$r_i = \lambda_i\left(R(Z_1,Z_2)\right)$$

$$R(Z_1,Z_2) := (Z_1 - Z_2)(Z_1 - \bar{Z}_2)^{-1}(\bar{Z}_1 - \bar{Z}_2)(\bar{Z}_1 - \bar{Z}_2)^{-1}$$

$$\mathrm{ds}_D^2 = \mathrm{tr}\left((I - W\bar{W})^{-1}\mathrm{d}W(I - W\bar{W})^{-1}\mathrm{d}\bar{W}\right)$$

$$\rho_D(W_1,W_2) = \log\left(\tfrac{1+\|\Phi_{W_1}(W_2)\|_O}{1-\|\Phi_{W_1}(W_2)\|_O}\right)$$

$$\Phi_{W_1}(W_2) = (I - W_1\bar{W}_1)^{-\frac{1}{2}}(W_2 - W_1)(I - \bar{W}_1W_2)^{-1}(I - \bar{W}_1W_1)^{\frac{1}{2}}$$