**001. Exponentiated Half Cauchy distribution:**

**CDF:**



**PDF:**



**HRF:**





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**Reliability/Survival function :**



**Quantile function:**



**Random deviate generation:**



**Likelihood function:**



**log-density:**



**MLE:**

**log-likelihood:** 





**002. Exponentiated Power Half Cauchy distribution:**

**CDF:**



**PDF:**



**HRF:**





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**Reliability/Survival function :**



**Quantile function:**



**Random deviate generation:**



**Likelihood function:**



**log-density:**

****

**MLE:**

**log-likelihood:** 

****

**003:Inverse Power Half Cauchy distribution:**

**CDF:**



**PDF:**



**HRF:**





****

**Reliability/Survival function:**



**Quantile function:**



**Random deviate generation:**



**Likelihood function:**

**log-density:**



**MLE:**

**Log-likelihood:**







**004:Exponential Inverse Half Cauchy Distribution(EIHC):**

**CDF:**



**PDF:**



**HRF:**





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**Reliability/Survival function:**



**Quantile function:**



**Random deviate generation:**



**Likelihood function:**



**log-density:**



**MLE:**

**Log-likelihood:**





