



Non – Singular Criterion and Analytics of Δ_{\pm} ATLAS: an Advanced Bayesian Model

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Abstract:

Merger of two different 'class' yield a higher degree probability of 'impacts' – To be produced in further research; than otherwise – 'class' of unimodular structures i.e., 'class' with lesser degrees being transformed to the same order criterions in a 'weighted' way. This being established in converge $-\Delta^-$: originating from the source concerned: Then emergent throughout in the separate case; being diverge $-\Delta^+$ with opposite orientation. Norming over variables – Classifiers are analyzed for each probability class

Classifiers:

Class n^1 and class \bar{n}^1 being considered as the base case being attributed notionally although in a 'fuzzy' way being established in orders less than 'concerned hypothesis' for 'class' n^1 and $n^2 \exists \Delta^- \approx \Delta^+ \forall$ *concerned ATLAS*: 'Structures with algebraic variables' or otherwise to be specified later.

Analytics:

Bayesian in a modified approach as prepared for this study.

Parameters:

<i>Class</i>	<i>Probability</i>	<i>ATLAS</i>	$Unimodular \rightarrow \forall \begin{matrix} +1 \\ -1 \end{matrix} \text{ where } +1 \Rightarrow (+ve \text{ factors}) \exists -1 \sum n^1 \sum \bar{n}^1 \xleftarrow{\text{less weighted than}} \sum n^1 \sum n^2$
$\sum n^1$	$\sum n^1$	Δ^+	
$\sum \bar{n}^1$	$\sum n^2$	Δ^-	

Results:

To be established over repeated revisions replacing variables as constants for all the *Parameters* concerned.

Approach:

Bayesian Inference; deg_h Parameters; ζ – *Distribution: Strong*; ζ – *Distribution: Weak*; Bernoulli Samples

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Methods:

I Parameterization

Regression coefficient – $\mu \cong \Sigma n^1 \Sigma n^2$ | Symbol Σ used here for conjugate class | each class being a group of sub

Probability of the distributions – $\rho(\mu)$ for distributions concerned μ

Sampling distribution – $\rho(\mathcal{D}|\mu)$ where $\mathcal{D} = \text{datas that are right now unknown}$

II Theorem

$$\rho(\mu|\mathcal{D}) = \frac{\rho(\mathcal{D}|\mu)\rho(\mu)}{\int \rho(\mathcal{D}|\mu)\rho(\mu)} = \frac{\rho(\mathcal{D}|\mu)\rho(\mu)}{\rho(\mathcal{D})}$$

Where,

$\rho(\mu)$ is prior distribution

$\rho(\mu|\mathcal{D})$ is posterior distribution

$\rho(\mathcal{D}|\mu)$ is the sample distribution

$$\Rightarrow \rho(\mu|\mathcal{D}) \propto \rho(\mathcal{D}|\mu)\rho(\mu)$$

III Sample Datasets

<i>ATLAS</i>	<i>Samples</i>	<i>Observed Factors</i> $n^1 n^1$	<i>Hypothesized Factors</i> $n^1 n^2$	
Δ^+	n	∂_n	$\bar{\partial}_n$	$\exists \bar{\partial}_n \approx \partial_n$
		\approx		
Δ^-	n	∂_n	$\bar{\partial}_n$	

IV Inference

deg_h Parameters with almost no available information are $x, y \exists x = 1, y = 1 \subseteq deg_h$

IV.1 Weak Cases (Δ^-)

$$\rho(\mu) \equiv \frac{\zeta(x+y)}{\zeta(x)\zeta(y)} \rho^{x-y} (1-\rho)^{x-y} = \frac{2!}{0!0!} \rho^0 (1-\rho)^0 \Rightarrow \rho(\mu) \propto \rho^0 (1-\rho)^0$$

Factors: α for ∂_n | β for $\bar{\partial}$

$$\text{Results: } \sum_{i=1}^{\alpha+\beta} x^i \quad \exists x^i = \begin{cases} i=1, & \text{if satisfies observed factors considered} \\ i=0, & \text{if satisfies hypothesized factors considered} \end{cases}$$

$$\text{Thus: } \rho(\mathcal{D}|\mu) = \prod_{i=1}^{\alpha+\beta} \rho^{x^i} (1-\rho)^{1-x^i} \Rightarrow \rho(\mu|\mathcal{D}) \propto \rho^\beta (1-\rho)^\alpha$$

IV.1 Strong Cases (Δ^+)

$$\rho(\mu) \equiv \frac{\zeta(\partial_n + \bar{\partial}_n)}{\zeta(\partial_n)\zeta(\bar{\partial}_n)} \rho^{\partial_n-1} (1-\rho)^{\bar{\partial}_n-1}$$

$$\text{Thus: } \rho(\mu|\mathcal{D}) \propto \rho^\beta (1-\rho)^\alpha * \rho^{\partial_n-1} (1-\rho)^{\bar{\partial}_n-1} \Rightarrow \rho(\mu|\mathcal{D}) \propto \rho^{(\partial_n-1+\beta)} (1-\rho)^{(\bar{\partial}_n-1+\alpha)}$$

V Establishing Hypothesis

$$\Delta^+: \text{expected value}(\rho) = \frac{\bar{\partial}_n - 1}{\partial_n - 1 + \bar{\partial}_n - 1}$$

$$\Delta^-: \text{expected value}(\rho) = \frac{\alpha}{\beta + \alpha}$$

With the *Weak Priory (vague information)*

:

$$\Delta^-: \text{expected value}(\rho) = \frac{\alpha}{\beta + \alpha} \text{ **Slightly greater than** } \Delta^+: \frac{\bar{\partial}_n - 1}{\partial_n - 1 + \bar{\partial}_n - 1}$$

VI Remarks

Considering the hypothesis the weight to be established to the weight to be considered are taken as a 5.1 – 4.9 % with 0.2 more inclined in the 'establishing class or sides' *where* $+1 \Rightarrow (+ve \text{ factors}) \exists -1 \sum n^1 \sum \bar{n}^1 \xleftarrow{\text{less weighted than}} \sum n^1 \sum n^2$.

VII References

Lectures of Gabriel Katz are considered for this studies and this particular hypothesis has been set up by altering and modifying certain criterions.

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