

Supplementary Material 1

Accuracy of Tests for Diagnosis of Animal Tuberculosis: Moving Away from the Golden Calf (and towards Bayesian Models)

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Overlap in-house function performed in R to estimate the percentage of overlap between prior and posterior distributions

#a and b are the parameters of the first beta distribution

```
f1 = function(x) {  
  dbeta(x, a, b)  
}
```

#c and d are the parameters of the first beta distribution

```
f2 = function(x) {  
  dbeta(x, c, d)  
}
```

#overlap function

```
overlap = function(f,g, from=0, to=1) {  
  minf = function(x) return(pmin(f(x), g(x)))  
  integrate(minf, from, to)}  
}
```

#check that the overlap of f1 with itself is 1

```
overlap(f1, f1)
```

#same for f2

```
overlap(f2, f2)
```

```
o12 = overlap(f1, f2)
```

#this is the overlap value between the two (prior and posterior) beta distributions:

```
o12$value
```