BAT-2 Status

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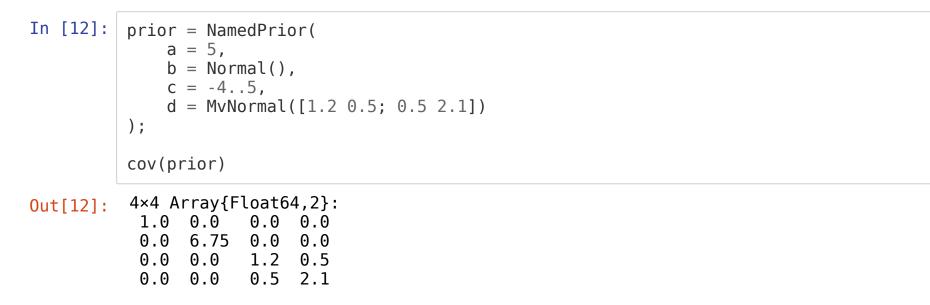
Recent progress

- Named priors (finally)
- Substantial cleanup of BAT code, some breaking changes
- Adapted to upcoming Julia v1.3 partr scheduler
- Distributed and multi-threaded code execution with BAT.jl and MPI.jl (Vasyl)
- Parameter space segmentation via AMI (Vasyl)

Open tasks (near term)

- Implementing comfortable priors: Named priors work, but still room for improvements
- Multi-Proposal MH (Lolian): Still under investigation, practical usefulness still unclear
- HMC: New package DynamicHMC.jl is supposed to be very good. Need to find someone to integrate it into BAT.jl
- Unit tests: Need fresh manpower on this
- Models for frequent use cases

Named priors



In [13]:	<pre>params = rand(prior)</pre>
Out[13]:	4-element Array{Float64,1}: -0.33745087340552526 -0.9469971472047991 0.27447354828737996 -2.334758409121436
In [14]:	params in param_bounds(prior)
Out[14]:	true
In []:	logpdf(prior, params)
In [17]:	VarShapes(prior)(params)
Out[17]:	(a = 5, b = -0.33745087340552526, c = -0.9469971472047991, d = [0.274473548287 37996, -2.334758409121436])

What's new with Julia

- Lot's of exciting news and development at JuliaCon 2019
- Julia v1.2 is almost done (v1.2-rc2 running just fine)
- Julia v1.3-alpha released: New partr scheduler, state of the art, fundamentally changes what's is possible with multitasking
- Julia code execution on GPUs almost routine new, Julia even runs on Google TPUs now (experimental).