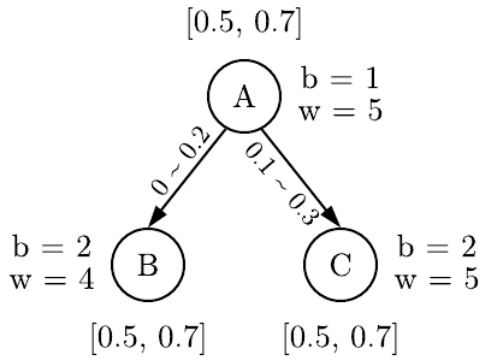
Artificial scenarios: some results

Preliminary information:

- fANOVA and RF are using 10000 samples and 300 trees;
- Imputing strategies: random value, middle point (mid), value out of range (out);
- fANOVA is applied on original ranges when using random or middle imputing;
- Basic definitions are using 300 samples.

Scenario 1



Expected: A, C, B

Basic definitions	fANOVA		
	random	**0.5 (mid)**	**2.0 (out)**
A: 0.8759	A: 0.6287	C: 0.3644	A: 0.3348
C: 0.4444	C: 0.0467	A: 0.3171	C: 0.3211
B: 0.3333	B: 0.0252	B: 0.0816	B: 0.0842

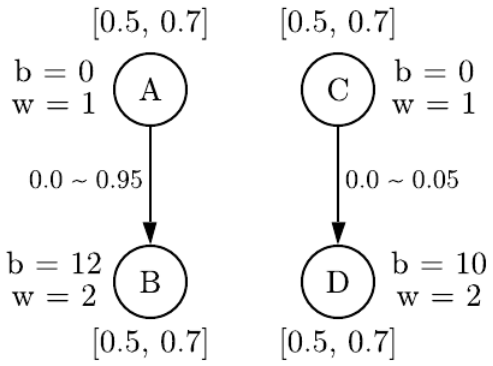
RF measures (raw performance, imputing *out of range*)

mean-min-depth	no-nodes	mse-increase	node-purity-inc	no-trees	times-root	p-value
A: 0.96	A: 14034	A: 4.81	C: 26487.62	300	C: 105	A: 1.2e-16
C: 1.17	C: 12897	C: 4.33	A: 23304.94	300	A: 102	0.999
B: 1.30	B: 12846	B: 3.61	B: 17591.65	300	B: 93	0.999

RF measures (raw performance, imputing *random*)

mean-min-depth	no-nodes	mse-increase	node-purity-inc	no-trees	times-root	p-value
B: 0.99	B: 58215	B: 15.40	A: 57841.80	300	A: 105	B: 0.08
A: 1.02	C: 57839	C: 7.58	C: 18016.36	300	B: 104	C: 0.69
C: 1.13	A: 57762	A: 6.02	B: 12812.64	300	C: 91	A: 0.82

Scenario 2



Expected: C, A, B, D

Basic definitions	fANOVA		
	random	**0.5 (mid)**	**2.0 (out)**
C: 0.4462	B: 0.5179	B: 0.5300	B: 0.3721
A: 0.3391	A: 0.2493	A: 0.1298	A: 0.3041
B: 0.2727	C: 0.1726	C: 0.1193	D: 0.1289
D: 0.2273	D: 0.0009	D: 0.0882	C: 0.0394

RF measures (raw performance, imputing *out of range*)

mean-min-depth	no-nodes	mse-increase	node-purity-inc	no-trees	times-root	p-value
A: 1.35	A: 10109	B: 24.81	B: 123083.28	300	B: 78	A: 1.1e-7
C: 1.44	C: 10051	D: 7.97	A: 40750.03	300	A: 75	C: 3.4e-6
D: 1.640	B: 9754	A: 7.91	D: 37075.48	300	C: 75	B: 1.5e-1
B: 1.643	D: 8749	C: 6.56	C: 34415.31	300	D: 72	D: 1.00

RF measures (raw performance, imputing *random*)

mean-min-depth	no-nodes	mse-increase	node-purity-inc	no-trees	times-root	p-value
C: 1.32	C: 47196	B: 42.49	B: 201644.89	300	82	C: 0.14
A: 1.33	B: 47182	A: 19.88	A: 103570.21	300	82	B: 0.16
B: 1.43	D: 46882	C: 12.71	C: 67519.16	300	B: 73	D: 0.72
D: 1.44	A: 46713	D: 2.62	D: 11279.92	300	D: 63	A: 0.93