Some variations on Figures 1 b), 1 c)

August 7, 2016

Will use the same theme throughout, so just declare this variable:

1 AR(1) correlation matrices

These results are for the $I = 2, p \geq 2$ autoregressive case with AR(1) with equal within-study variances, so the parameters we vary are: r, ρ_1, ρ_2, p. We save the relative efficiencies for only one of coefficients, as they are all equal. We consider $\rho_1 = 0$.

The following results are for the $I = 20, p \geq 2$ AR(1) case with equal within-study variances and $S_i^2 \equiv S^2, \rho_i = \frac{\rho(i-1)}{I}$, so the parameters we vary are ρ, p. We save the relative efficiencies for only one of coefficients, as they are all equal.

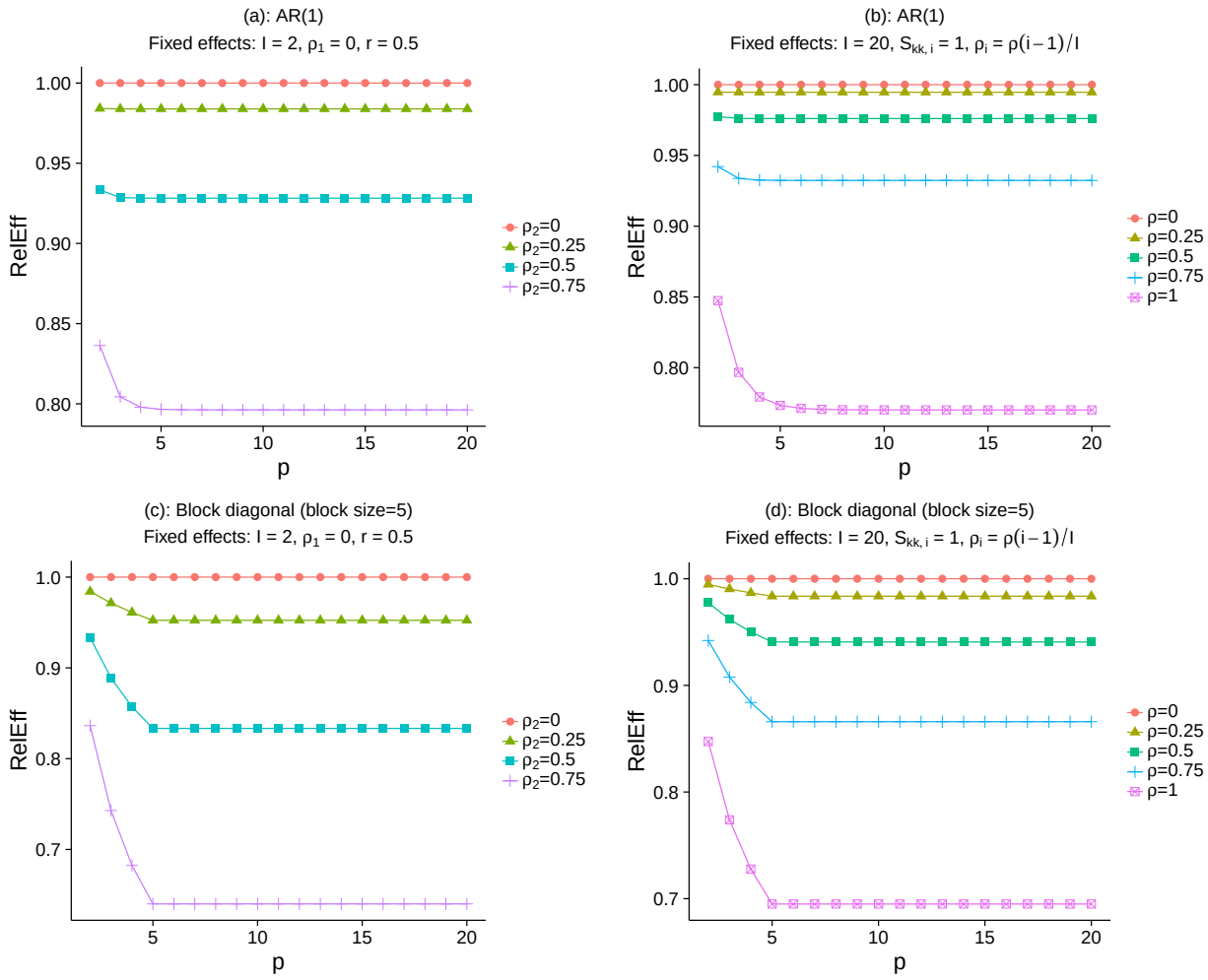
2 Block diagonal correlation matrices

These results are for the $I = 2, p \geq 2$ case with block diagonal matrices with block size of 5, compound symmetry within the blocks, so the parameters we vary are: r, ρ_1, ρ_2, p. We save the relative efficiencies for only one of coefficients, as they are all equal. We consider $\rho_1 = 0$.

The following results are for the $I = 20, p \geq 2$ case with block diagonal matrices with block size of 5, compound symmetry within the blocks, with equal within-study variances and $S_i^2 \equiv S^2, \rho_i = \frac{\rho(i-1)}{I}$, so the parameters we vary are ρ, p. We save the relative efficiencies for only one of coefficients, as they are all equal.

3 Put all four panels together

```
## Loading required package:  grid
```


(a): AR(1)
Fixed effects: I = 2, ρ1 = 0, r = 0.5
RelEff
p
ρ2=0
ρ2=0.25
ρ2=0.5
ρ2=0.75
(b): AR(1)
Fixed effects: I = 20, Skk, i = 1, ρi = ρ(i−1)/I
RelEff
p
ρ=0
ρ=0.25
ρ=0.5
ρ=0.75
ρ=1
(c): Block diagonal (block size=5)
Fixed effects: I = 2, ρ1 = 0, r = 0.5
RelEff
p
ρ2=0
ρ2=0.25
ρ2=0.5
ρ2=0.75
(d): Block diagonal (block size=5)
Fixed effects: I = 20, Skk, i = 1, ρi = ρ(i−1)/I
RelEff
p
ρ=0
ρ=0.25
ρ=0.5
ρ=0.75
ρ=1