```
      subroutine Jacobi(n)
      integer n                 ! size including boundaries
      integer i, j, iters
      real grid(n,n), new(n,n), maxdiff

!HPF$ PROCESSORS pr(PR)        ! use PR processors
!HPF$ ALIGN grid(i,j) WITH new(i,j)
!HPF$ DISTRIBUTE grid(BLOCK) ONTO pr

      initialize grid and new, including boundaries
      do iters = 1, MAXITERS
        FORALL (i=2:n-1, j=2:n-1)
          new(i,j) = (grid(i-1,j) + grid(i+1,j) +
                      grid(i,j-1) + grid(i,j+1)) / 4
        grid = new              ! copies array in parallel
      end do

      maxdiff = MAXVAL(ABS(grid-new))   ! reduction
      end
```

Figure 12.8 Jacobi iteration in High Performance Fortran.