**c)**

**Serial version: i.e. inside NLCG**

:

**:**

**:**

**:**

**:**

**:**

**Call**  fwdPred (m0,d,eAll)

:

:

:

**Serial/Parallel version: i.e. inside NLCG**

**:**

**:**

**:**

**#if def=MPI then**

**Call**  Master\_Job\_fwdPred (m0,d,eAll)

**#else**

**Call**  fwdPred (m0,d,eAll)

**#end if**

:

:

:

**b)**

**a)**

**MPI\_Main**

**Master:**

:

:

Subroutine Master\_Job\_fwdPred (m0,d,e0)

1- **Task** = ‘Distribute Model Parameters‘

-**Send** a copy of model parameters to all workers.

2- **Task** = ‘Solve Forward Problem ‘

- **Send** the index of one transmitter to each worker

- **Receive** the predicted data

End subroutine

:

**Worker:**

**Do**

**Receive task from Master**

if **task** = ‘Distribute Model Parameters‘ then

**Receive** a copy of model parameters **from Master**

if **task** = ‘Solve Forward Problem ‘ then

**Receive** the index of one transmitter **from Master**

**Call** fwdPred\_TX (m0,d,e0)

**Send** the predicted data for one transmitter **to Master**

if **task** = ‘Stop‘ then

EXIT loop

**Loop**