Algorithm 1 Incremental Bundle Adjustment

For all images indexed with 1 to N

All homography bag **H_all = []**

for each i ∈ {2, ..., N} **do**

    ba = New bundle adjuster.

    for each j ∈ {2, ..., i-1} **do**

        Add H_{j1} in **H_all** to **ba** as initial guess.

    end for

    Solve H_{i1} with **RANSAC** scheme and use it as initial guess.

    Add H_{i1} to **ba**

    Run bundle adjusment, **ba**.Run()

    Store newly optimized homography to H_all

end for