
```
function [eta,epsilon] = joshRotM2Quat(C)

if ~joshIsRotM(C)
    throw(MException("joshRotM2Quat:invalidInput":"C must be a rotational
        matrix"))
end

eta = .5*sqrt(1+trace(C));
epsilon = ...
    [(C(2,3)-C(3,2))/(4*eta);...
     (C(3,1)-C(1,3))/(4*eta);...
     (C(1,2)-C(2,1))/(4*eta)];
end
```

Published with MATLAB® R2022a