```matlab
grids = [20, 20; 40, 40; 80, 80; 160, 160];
N = grids(:,1) .* grids(:,2);
steps = [100, 200, 400, 800]';
execution_time = [0.13, 0.58, 5.92, 92.63]';
clock_time = [3, 10, 17, 95]';

C_exec = execution_time ./ steps;
C_clock = clock_time ./ steps;

p_exec = polyfit(log(N), log(C_exec), 1);
alpha_exec = p_exec(1);
beta_exec = exp(p_exec(2));

p_clock = polyfit(log(N), log(C_clock), 1);
alpha_clock = p_clock(1);
beta_clock = exp(p_clock(2));

%plotting
fig = figure('Color', 'w', 'Position', [100, 100, 900, 600]);
ax = axes('NextPlot', 'add', 'XScale', 'log', 'YScale', 'log');

set(ax, 'Color', 'w', 'XColor', 'k', 'YColor', 'k', 'Box', 'off');

loglog(N, C_exec, 'bo-', 'LineWidth', 2, 'MarkerFaceColor', 'b',
'DisplayName', 'ExecutionTime / step');
loglog(N, C_clock, 'rs--', 'LineWidth', 2, 'MarkerFaceColor', 'r',
'DisplayName', 'ClockTime / step');

N_fit = logspace(log10(min(N)), log10(max(N)), 200);
C_fit = beta_exec .* (N_fit .^ alpha_exec);
loglog(N_fit, C_fit, 'g-', 'LineWidth', 2.5, ...
    'DisplayName', sprintf('Fit: \\alpha = %.2f', alpha_exec));

xlabel('Total cells N = N_x N_y', 'FontSize', 12, 'FontWeight', 'bold',
'Color', 'k');
ylabel('Cost per timestep C (s)', 'FontSize', 12, 'FontWeight', 'bold',
'Color', 'k');
title('Wall-Clock Scaling', 'FontSize', 14, 'Color', 'k');

lgd = legend('Location', 'northwest');
set(lgd, 'TextColor', 'k', 'EdgeColor', 'k', 'Color', 'w', 'FontSize', 10);

str = {sprintf('C \\approx %.2e N^{%.2f}', beta_exec, alpha_exec)};
text(0.6, 0.15, str, 'Units', 'normalized', 'FontSize', 11, 'Color', 'k', ...
    'BackgroundColor', [1 1 1 0.9], 'EdgeColor', 'k', 'Margin', 5);

grid(ax, 'on');
ax.GridColor = [0.2 0.2 0.2];
ax.GridAlpha = 0.3;

fprintf('alpha = %.4f\n', alpha_exec);
```

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