Method 2

surface temperature as a function of latitude and time for zeroing out noncondensing greenhouse gases with 250m of ocean mixed layer depth with .65 of ice albedo (smooth lines)

```
clear all
close all
lat = ncread('data/noGHG_250m.atmos.nc','lat');
tsurf = ncread('data/noGHG_250m.atmos.nc','t_surf');
tsurf_ann=squeeze(mean(reshape(tsurf,[90 12 400]),2));
tsurf_ann_cel = tsurf_ann-273.15;
year = [1:1:200];
tsurf_ann_cel_sub = tsurf_ann_cel(:,[1:200]);
contourf(year,lat,tsurf_ann_cel_sub, [-87 -40 -25 -10 -1 1 2 5 10 20
 27]);
axis ([0 75 -90 90 ]);
set (gca, 'YLim',[-90 90]);
set (gca,'YTick',(-90:30:90));
ylabel('Latitude','FontSize',16,'fontweight','bold');
xlabel('Year','FontSize',16,'fontweight','bold');
ax = gca;
ax.FontSize = 12;
%title('Annual Mean Surface Temperature');
map = [repmat([95 161 213],47,1)
    repmat([117 199 236],15,1)
    repmat([163 214 237],15,1)
    repmat([202 230 238],9,1)
    repmat([255 255 253],2,1)
    repmat([246 240 128],1,1)
    repmat([246 212 100],3,1)
    repmat([237 171 79],5,1)
    repmat([222 110 57],10,1)
    repmat([210 55 53],7,1)] ./255;
    colormap(map);
    c = struct;
    c = colorbar;
    caxis([-87 27]);
    set(c,'Ticks',[-87 -40 -25 -10 -1 1 2 5 10 20 27]);
    c.Location = 'southoutside';
    c.Label.String ='Annual Mean Surface Temperature(^{\circ}C)';
    c.Label.FontSize = 16;
    c.Label.FontWeight = 'bold';
```

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