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Gr. Wtorek 13:00

Systemy CAD/CAD

Laboratorium 2

1. Zmodyfikowane fragmenty funkcji spline2D_comp

```
knot_vectorx= [0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 14];

knot_vectory=[0 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 14];

precision = 0.01;
```

```
grid_size = 1/precision + 1;

sum = zeros(grid_size, grid_size);

coeff = [
  [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
  [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
  [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
  [0 0 0 0 1 0 0 0 0 0 1 1 1 0 0]
  [0 0 0 1 1 1 0 0 0 1 1 0 1 1 0]
  [0 0 0 1 0 1 0 0 0 1 0 0 0 1 0]
  [0 0 0 1 0 1 0 0 0 1 0 0 0 0 0]
  [0 0 1 1 0 1 1 0 0 1 0 0 0 0 0]
  [0 0 1 0 0 0 1 0 0 1 0 0 0 0 0]
  [0 0 1 1 1 1 1 0 0 1 0 1 1 1 0]
  [0 1 1 0 0 0 1 1 0 1 0 0 0 1 0]
  [0 1 0 0 0 0 0 1 0 1 0 0 0 1 0]
  [0 1 0 0 0 0 0 1 0 1 1 0 1 1 0]
  [0 1 0 0 0 0 0 1 0 0 1 1 1 0 0]
  [0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
];
```

```
hold on
for i=1:nrx
  %compute values of
  vx=compute_spline(knot_vectorx,px,i,X);
  for j=1:nry
    vy=compute_spline(knot_vectory,py,j,Y);
    sum = sum + coeff(nrx-j+1,i) * vx.*vy;
  end
end
surf(X, Y, sum)
colorbar
hold off

end
```

2. Wynik