



**ΕΘΝΙΚΟ ΚΑΙ ΚΑΠΟΔΙΣΤΡΙΑΚΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ**

ΤΜΗΜΑ ΠΛΗΡΟΦΟΡΙΚΗΣ ΚΑΙ ΤΗΛΕΠΙΚΟΙΝΩΝΙΩΝ

**Ανάλυση II
Αρχείο Γραφημάτων Συναρτήσεων
ΟΜΑΔΑ Α**

Υλοποίηση:
Αγγελόπουλος Βασίλης

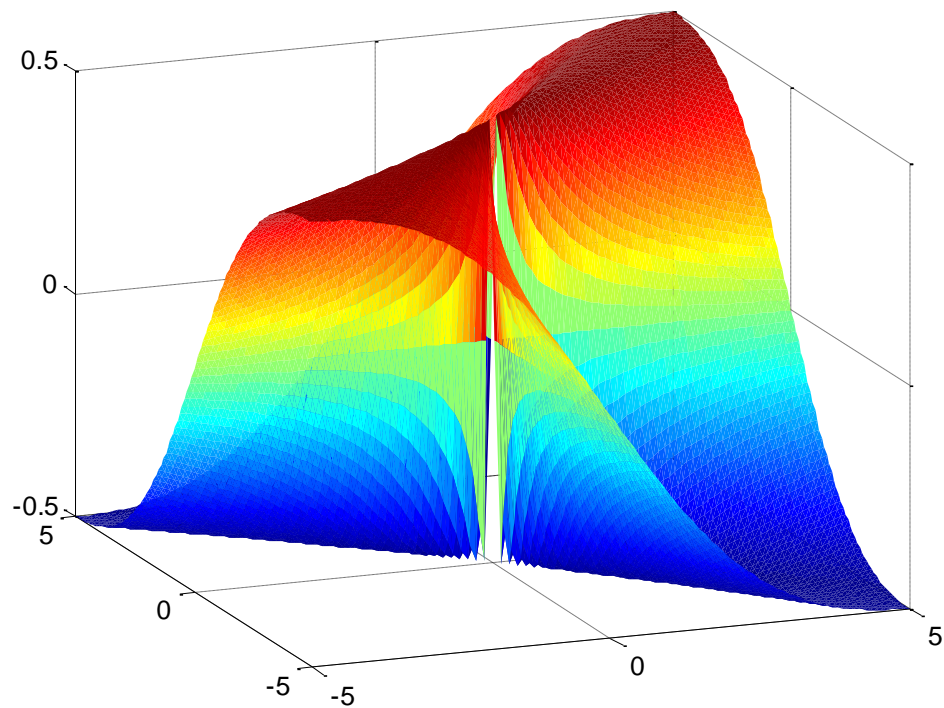
ΔΙΔΑΣΚΟΥΣΑ: Αναπληρώτρια Καθηγήτρια Ευαγγελάτου-Δάλλα Λεώνη

Αθήνα – 2011

Σημείωση: Τα σχήματα αντιστοιχούν στα αρχεία MATLAB, τα οποία βρίσκονται στο **Figure_Codes_1.rar/GROUP A**. Το κάθε σχήμα αναφέρεται στο ανάλογο .m file με τον αριθμό που βρίσκεται δίπλα σε αυτό.

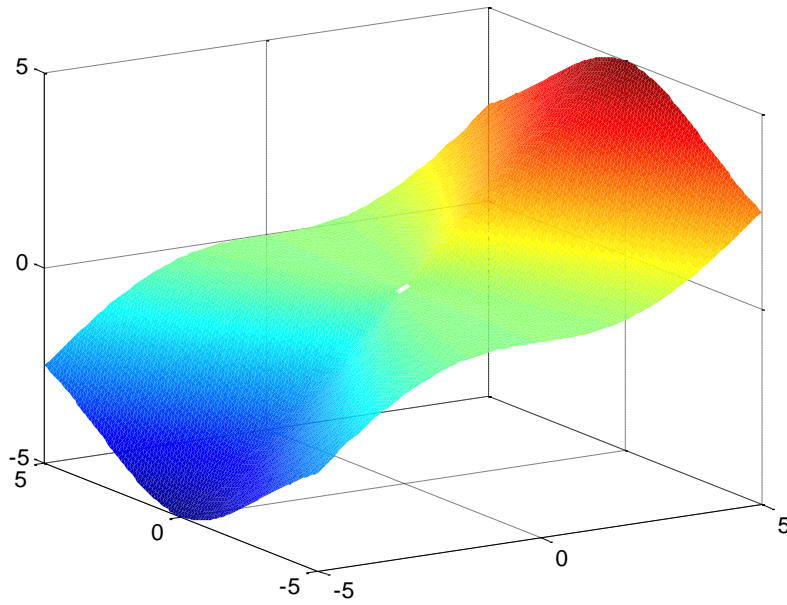
A1.

$$f(x, y) = \frac{xy}{x^2 + y^2}$$



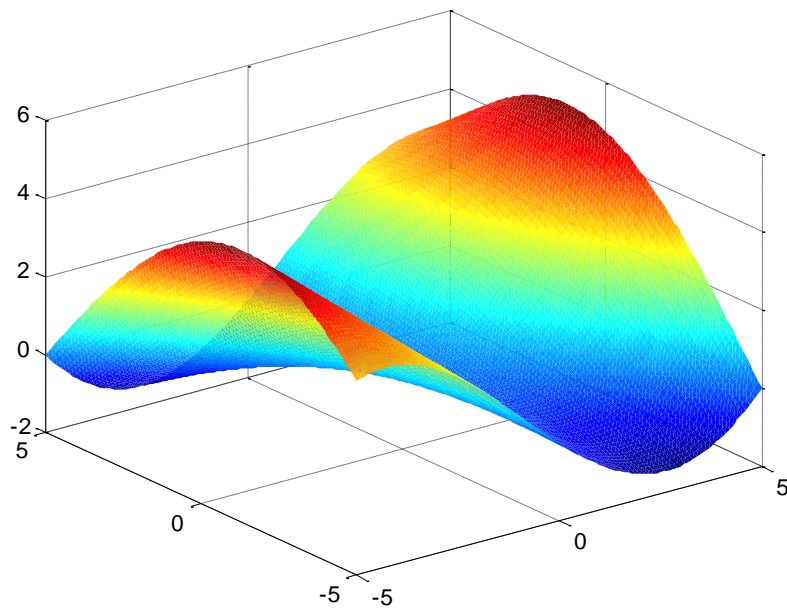
A2.

$$f(x, y) = \frac{x^3}{x^2 + y^2}$$



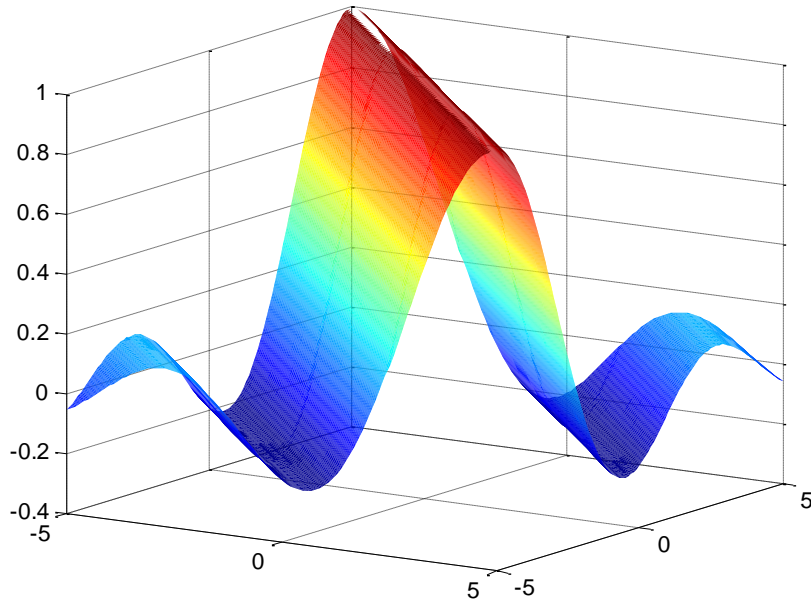
A3.

$$f(x, y) = x \cos\left(\frac{x+y}{4}\right)$$



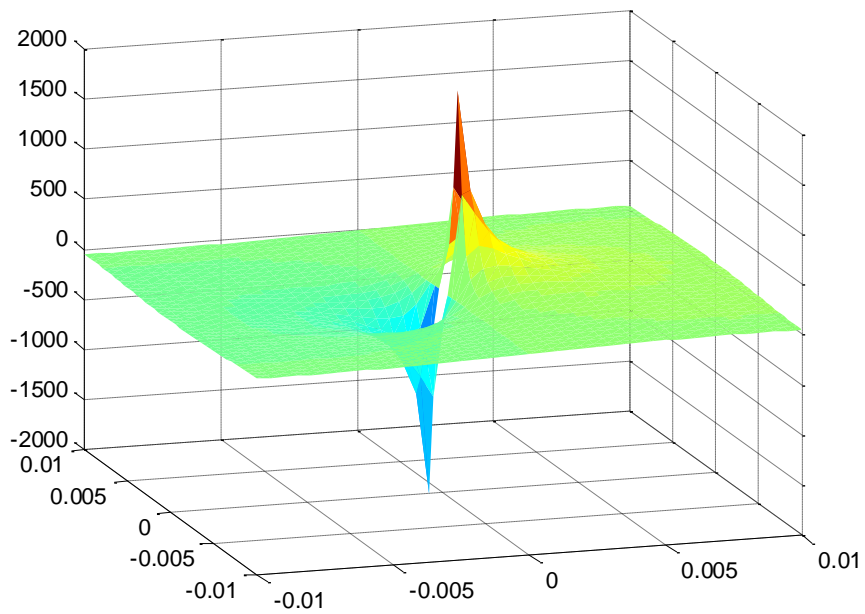
A4.

$$f(x, y) = \frac{\cos(x + y)}{x + y}$$



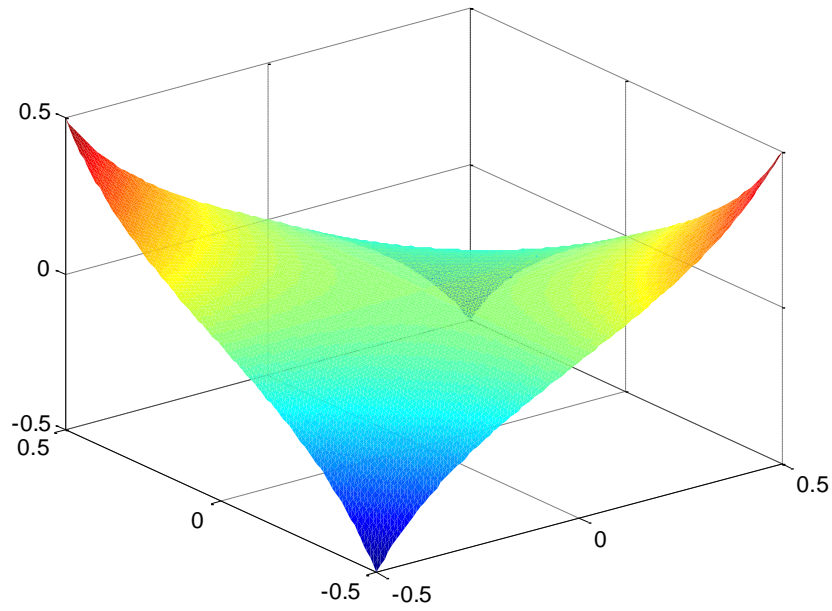
A5.

$$f(x, y) = \frac{x}{x^2 + y^2}$$



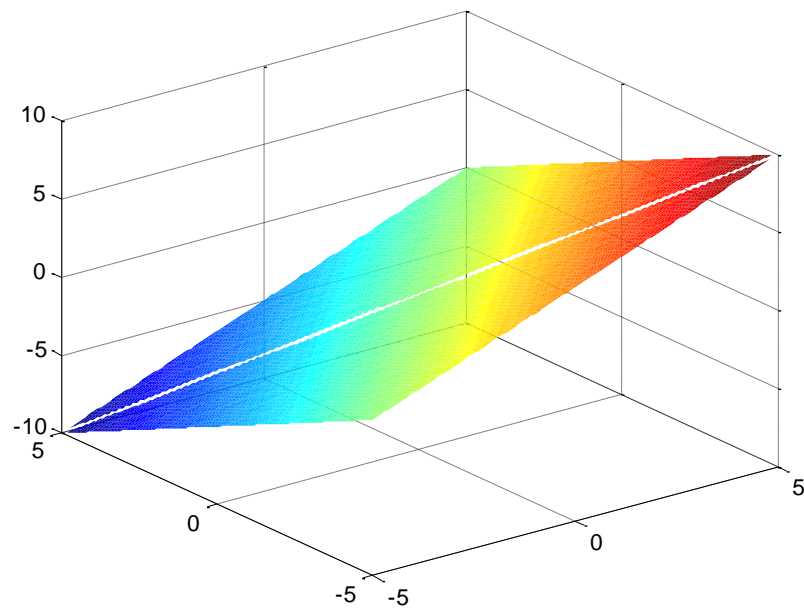
A6.

$$f(x, y) = \frac{xy}{x^2 + y^2 - 1}$$



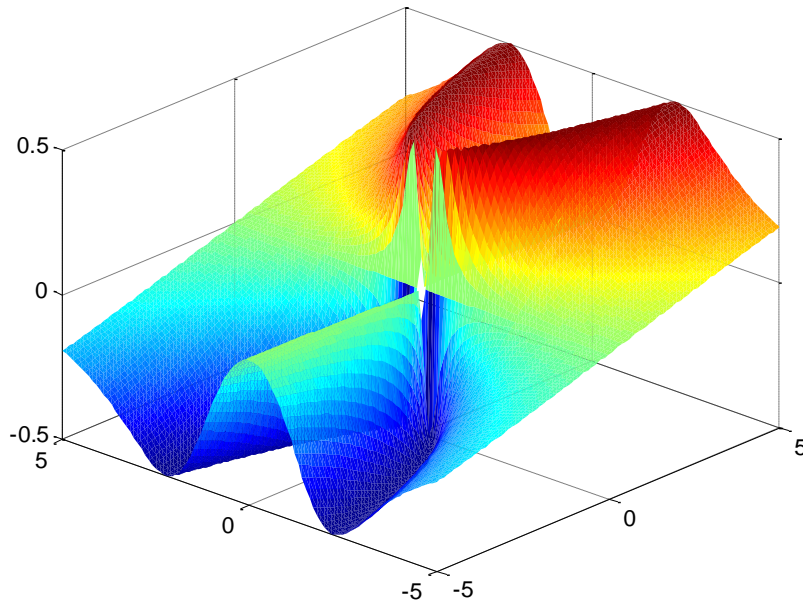
A7.

$$f(x, y) = \frac{x^2 - y^2}{x + y}$$



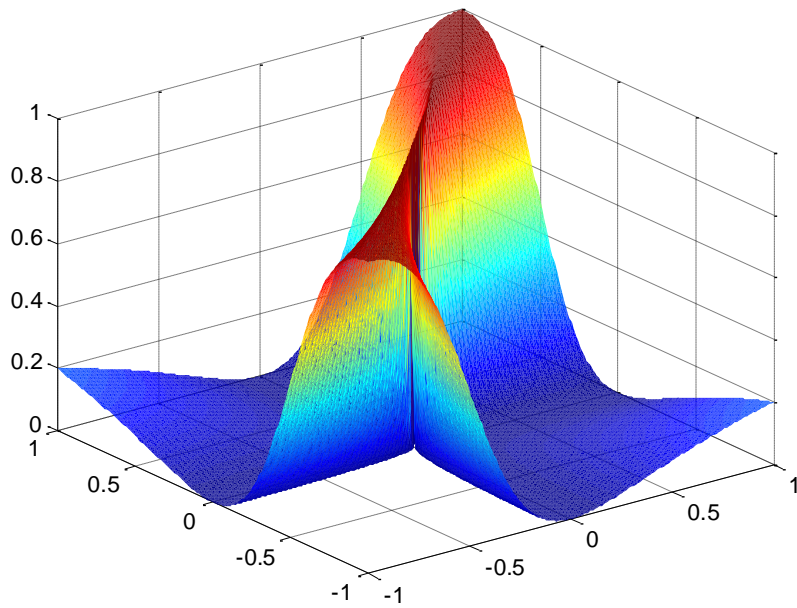
A8.

$$f(x, y) = \frac{xy^2}{x^2 + y^4}$$



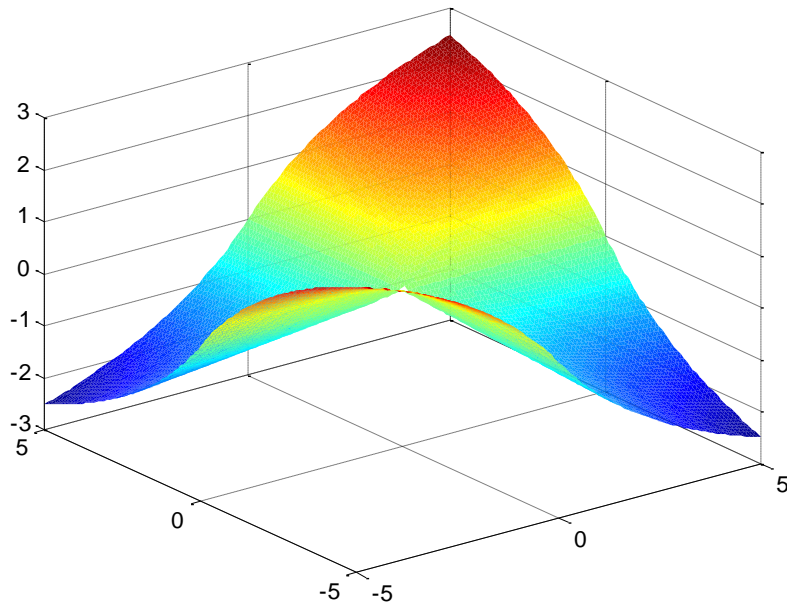
A9.

$$f(x, y) = \frac{x^2 y^2}{x^2 y^2 + (x - y)^2}$$



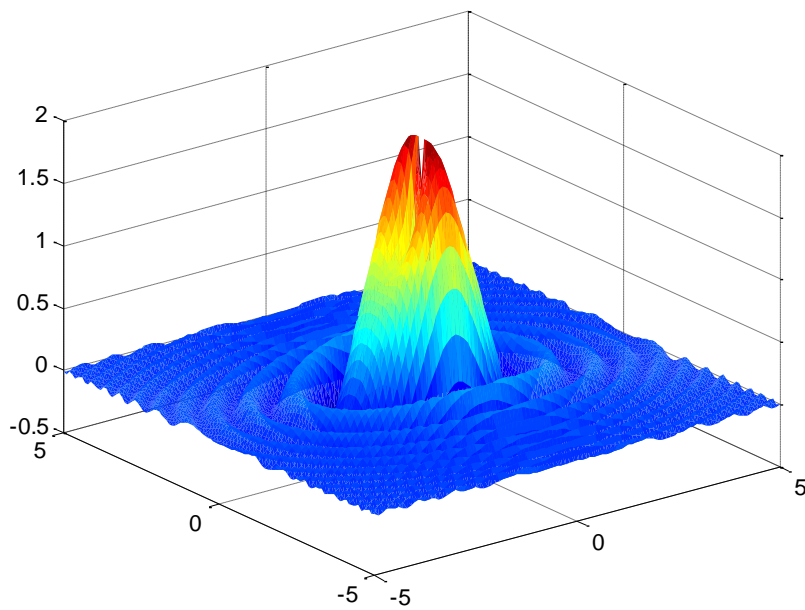
A10.

$$f(x, y) = \frac{xy}{|x| + |y|}$$



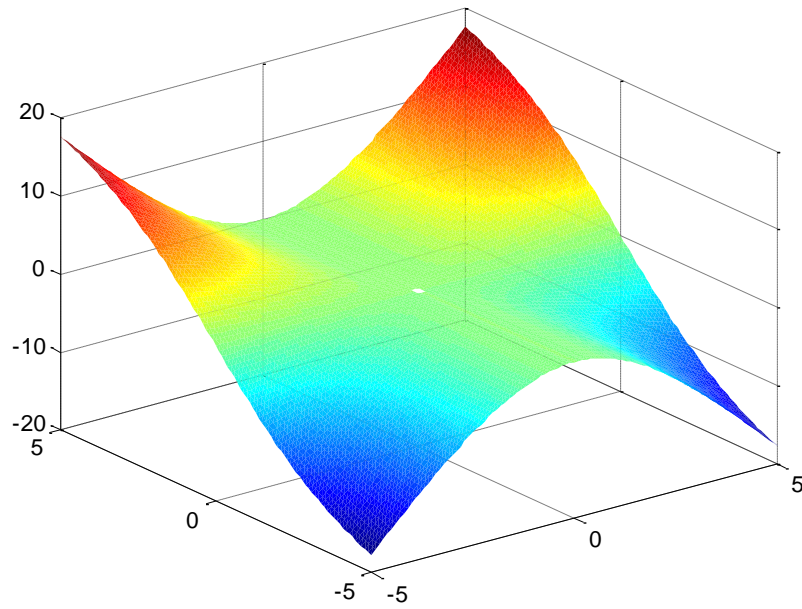
A11.

$$f(x, y) = \frac{\sin(x^2 + 2y^2)}{x^2 + y^2}$$



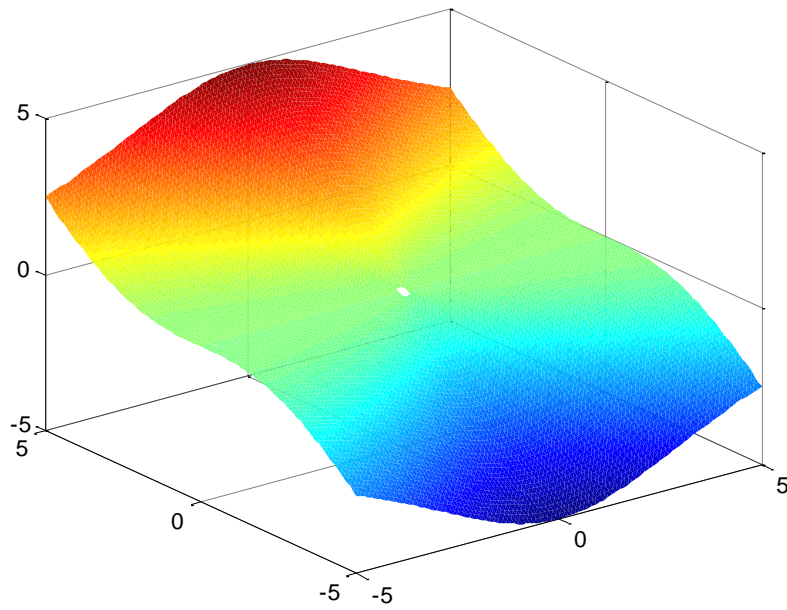
A12.

$$f(x, y) = \frac{x^2 y}{\sqrt{x^2 + y^2}}$$



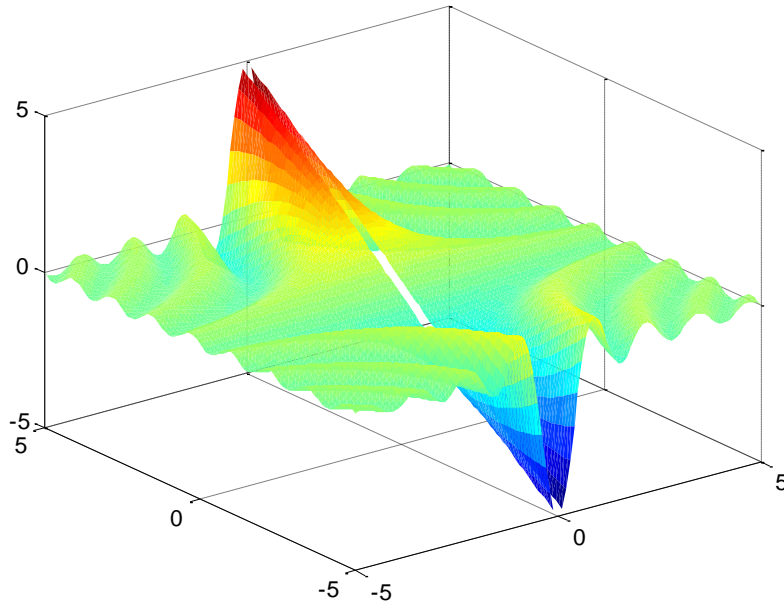
A13.

$$f(x, y) = \frac{y^3}{x^2 + y^2}$$



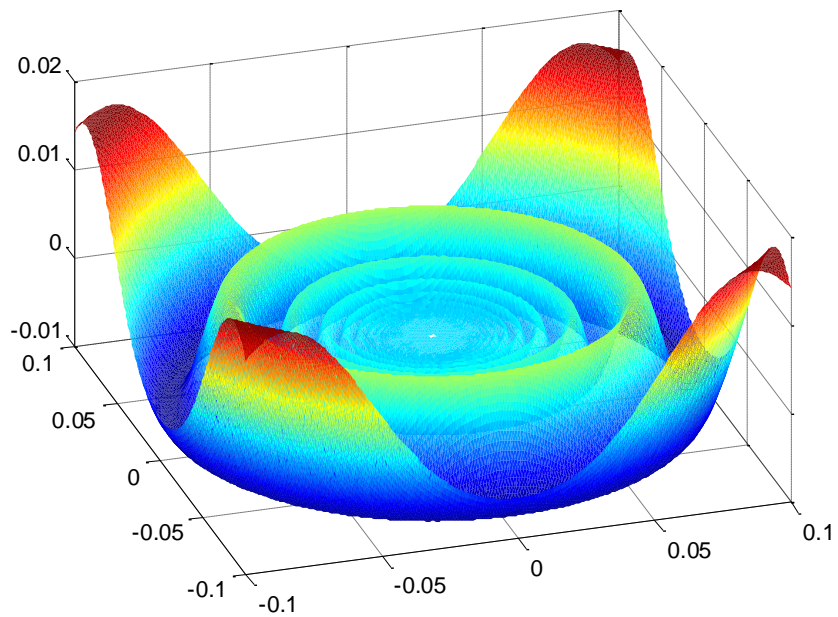
A14.

$$f(x, y) = \frac{\sin(xy)}{x}$$



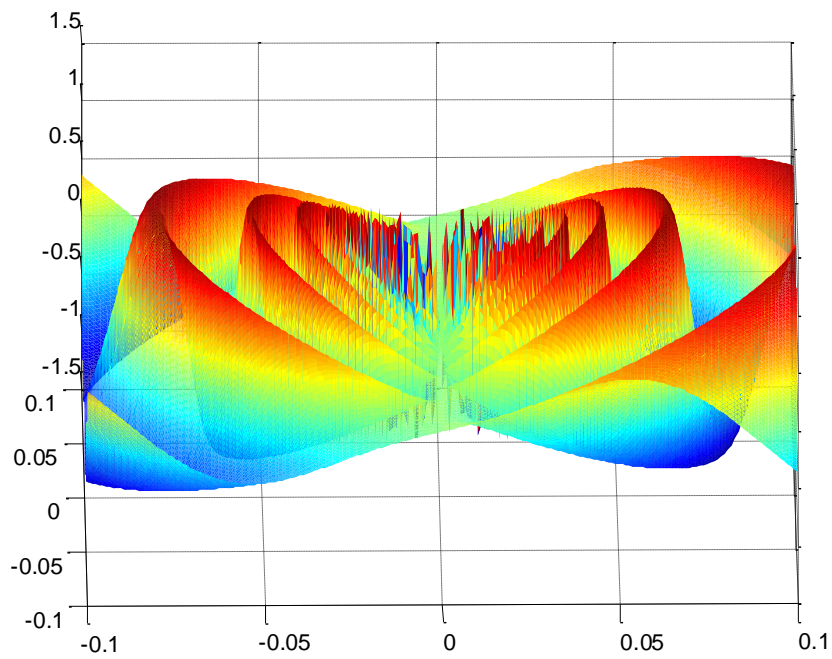
A15.

$$f(x, y) = (x^2 + y^2) \sin\left(\frac{1}{\sqrt{x^2 + y^2}}\right)$$



A16.

$$\frac{\partial f(x, y)}{\partial x} = \frac{\partial \left[(x^2 + y^2) \sin\left(\frac{1}{\sqrt{x^2 + y^2}}\right) \right]}{\partial x}$$



A17.

$$\frac{\partial f(x, y)}{\partial y} = \frac{\partial \left[(x^2 + y^2) \sin\left(\frac{1}{\sqrt{x^2 + y^2}}\right) \right]}{\partial y}$$

