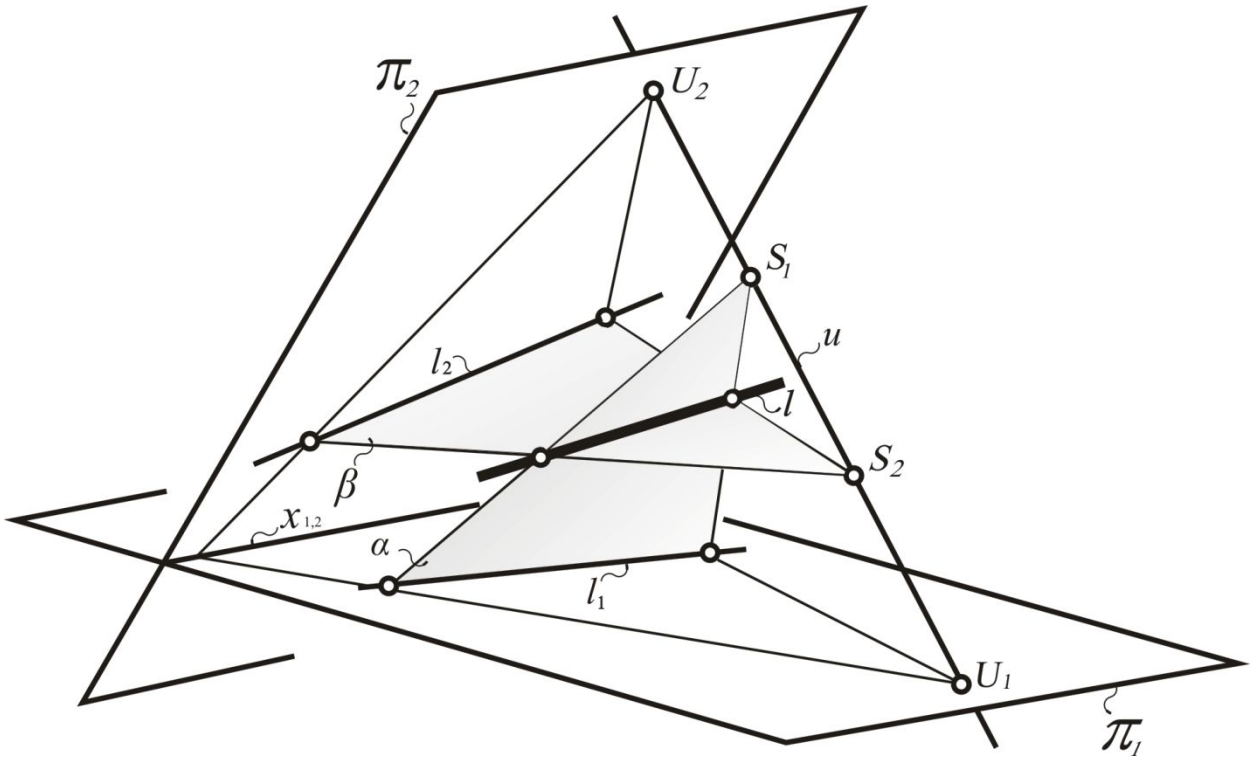
МОДЕЛЬ ПРЯМОЙ


Алгоритм работы проекционного аппарата
Классификация прямых
Устройство проекционного аппарата
Признаки моделей прямых частного положения
Моделирование прямой трехмерного пространства
Определение положения прямой относительно проекционного аппарата по его модели
Построение точек пересечение прямой с картинами
Построение проекции точки, принадлежащей прямой, по одной заданной проекции
Построение точек схода прямой
Определение модели точки
Характерные признаки моделей точек частного положения

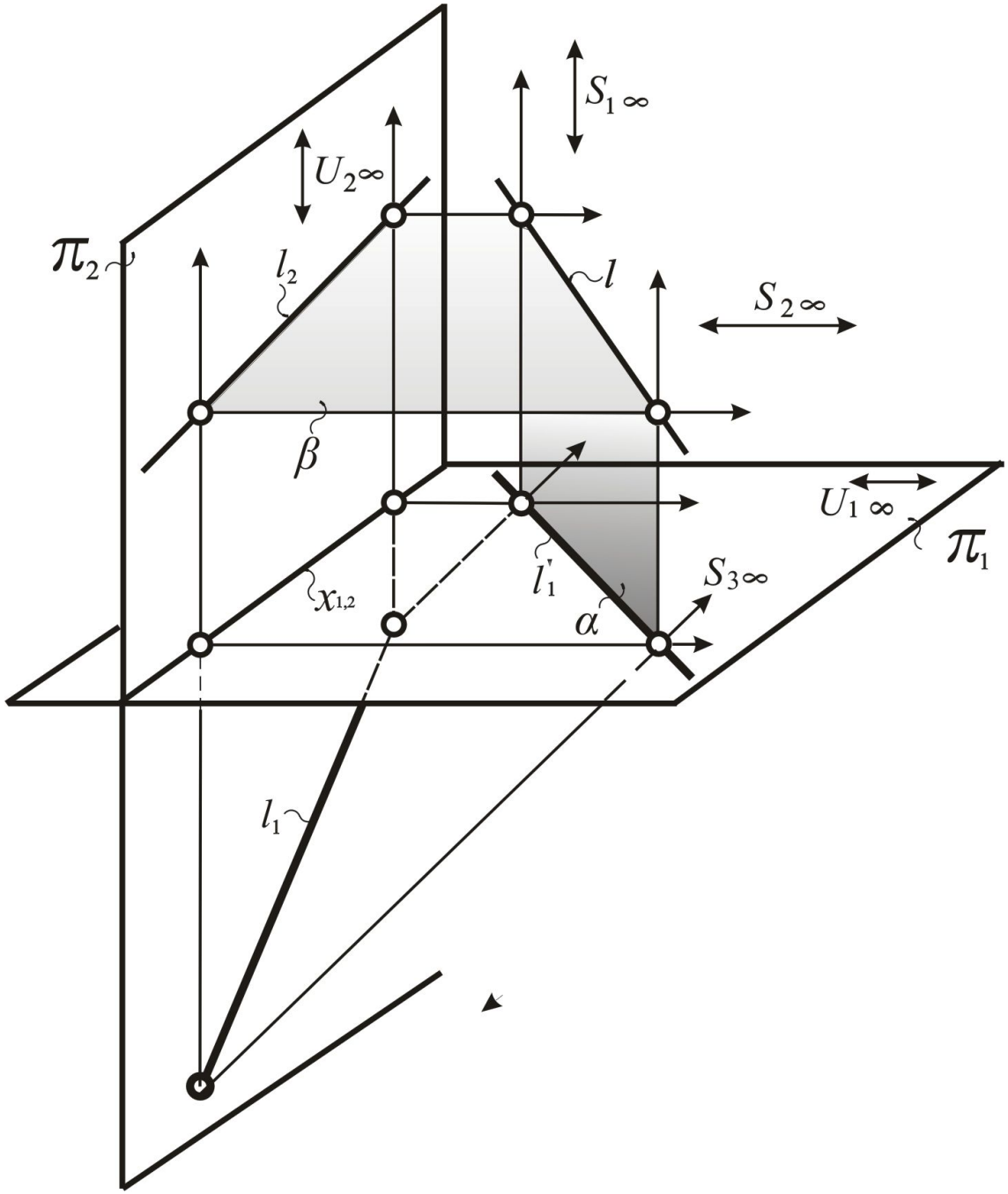

π_2
U_2
S_1
u
l_2
l
S_2
β
$x_{1,2}$
α
l_1
U_1
π_1

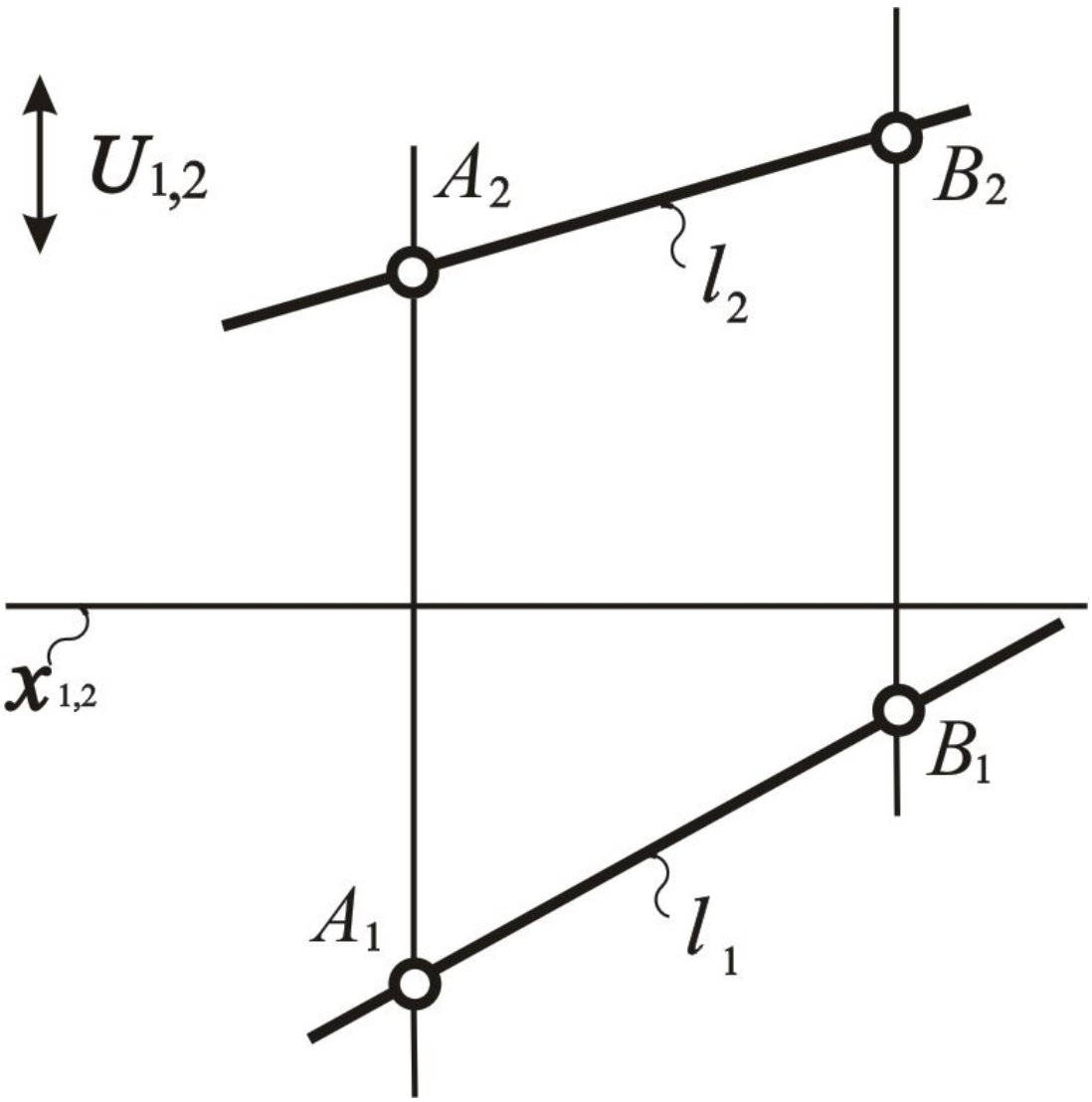
$$l \cup S_1 = \alpha$$

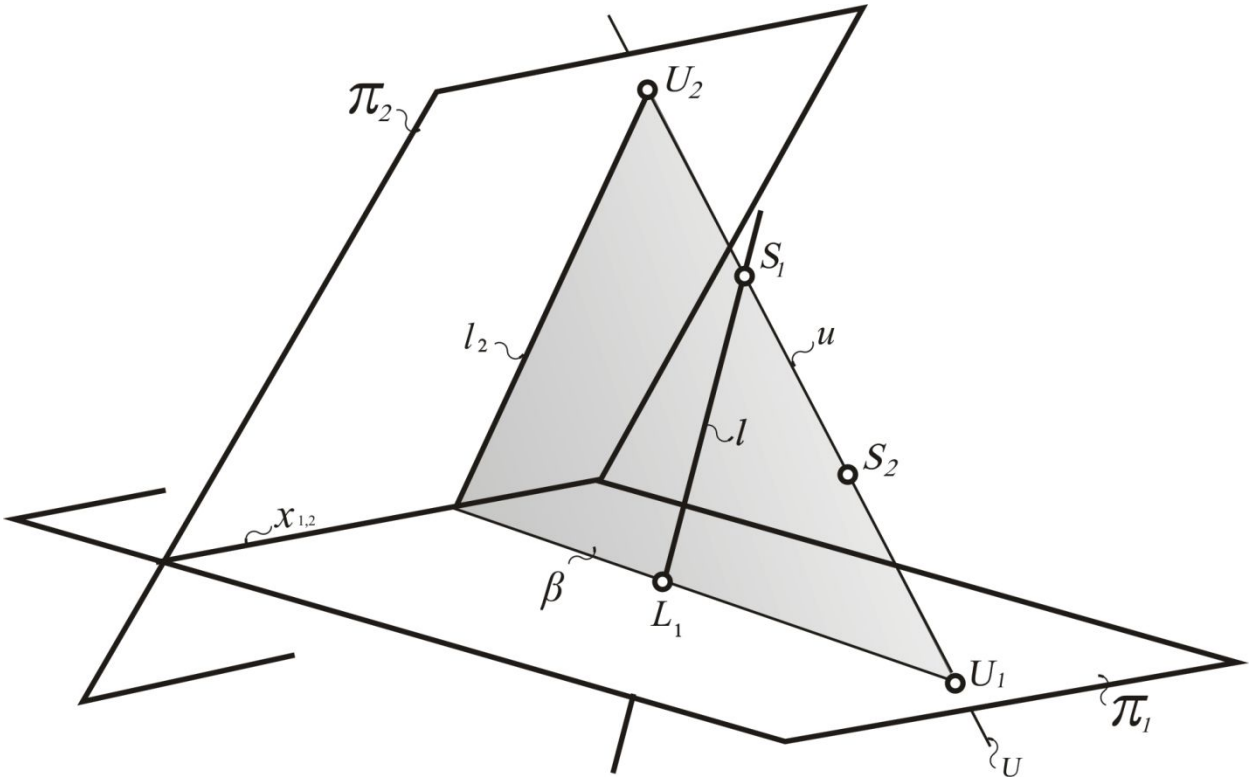
$$l \cup S_2 = \beta$$

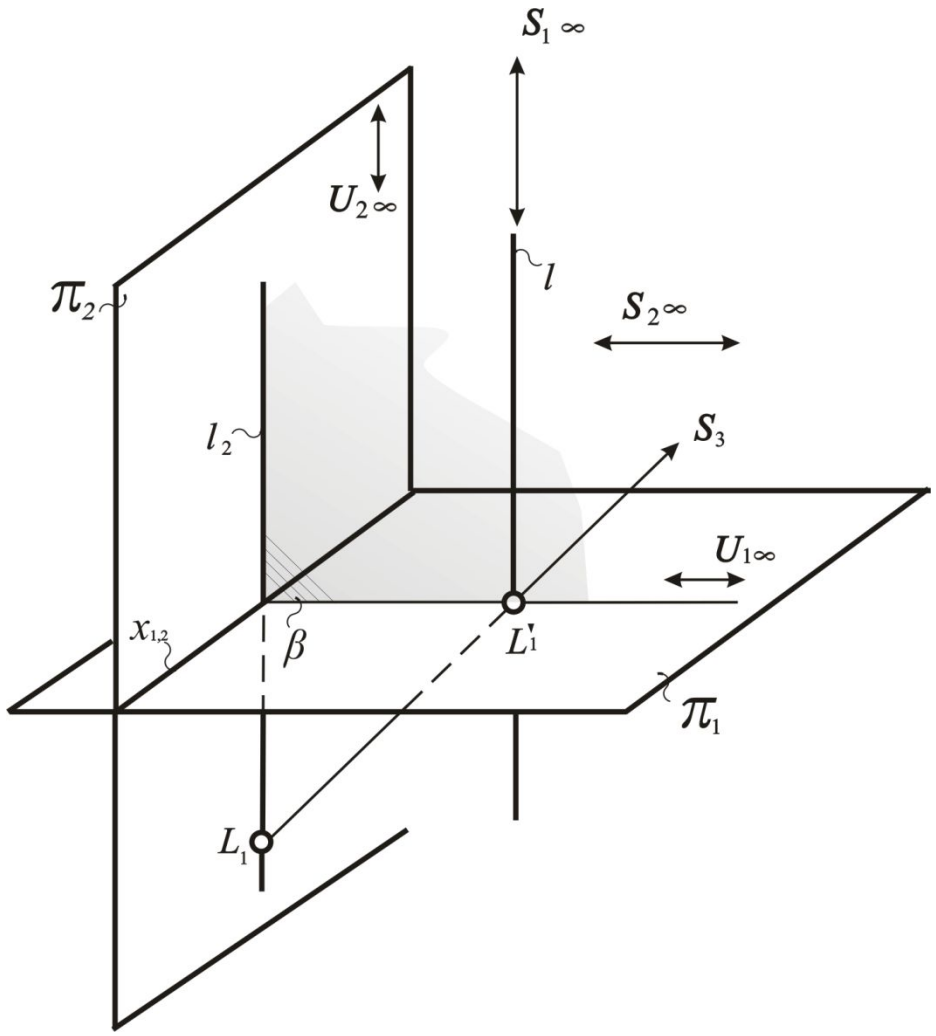
$$\alpha \cap \pi_1 = l_1$$

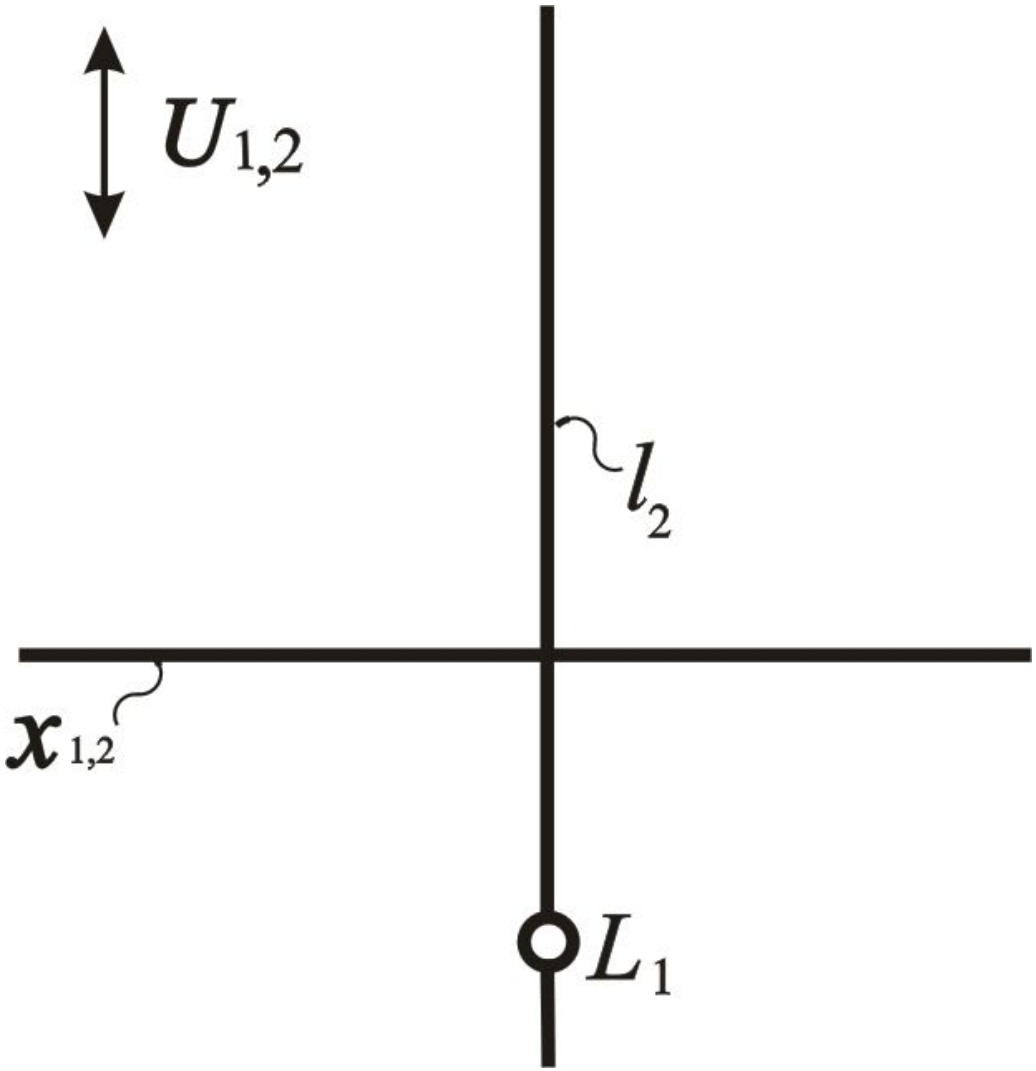
$$\beta \cap \pi_2 = l_2$$

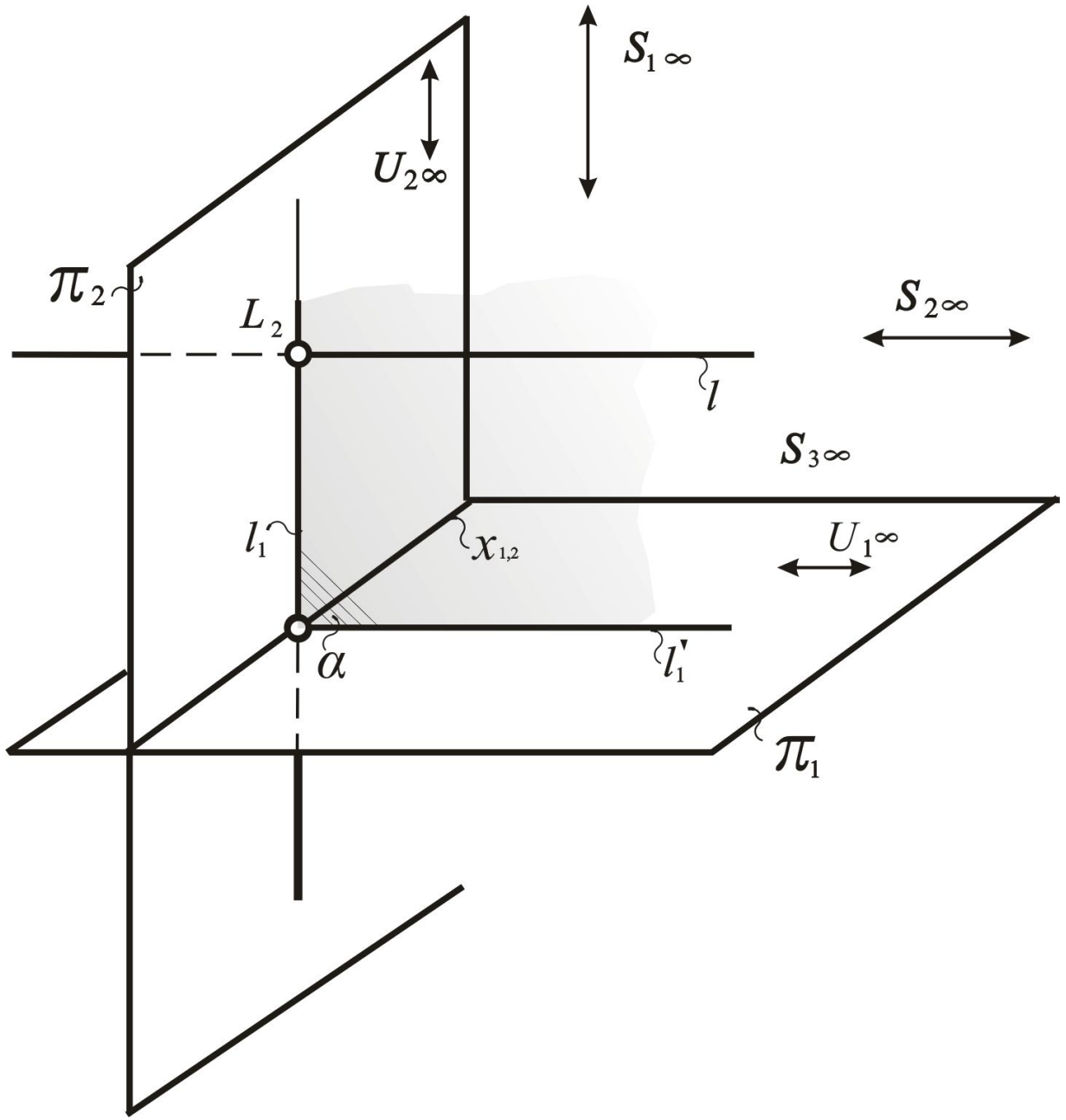

$S_1\infty$
$U_2\infty$
π_2
l_2
l
$S_2\infty$
β
$U_1\infty$
π_1
l_1'
$S_3\infty$
$x_{1,2}$
α
l_1

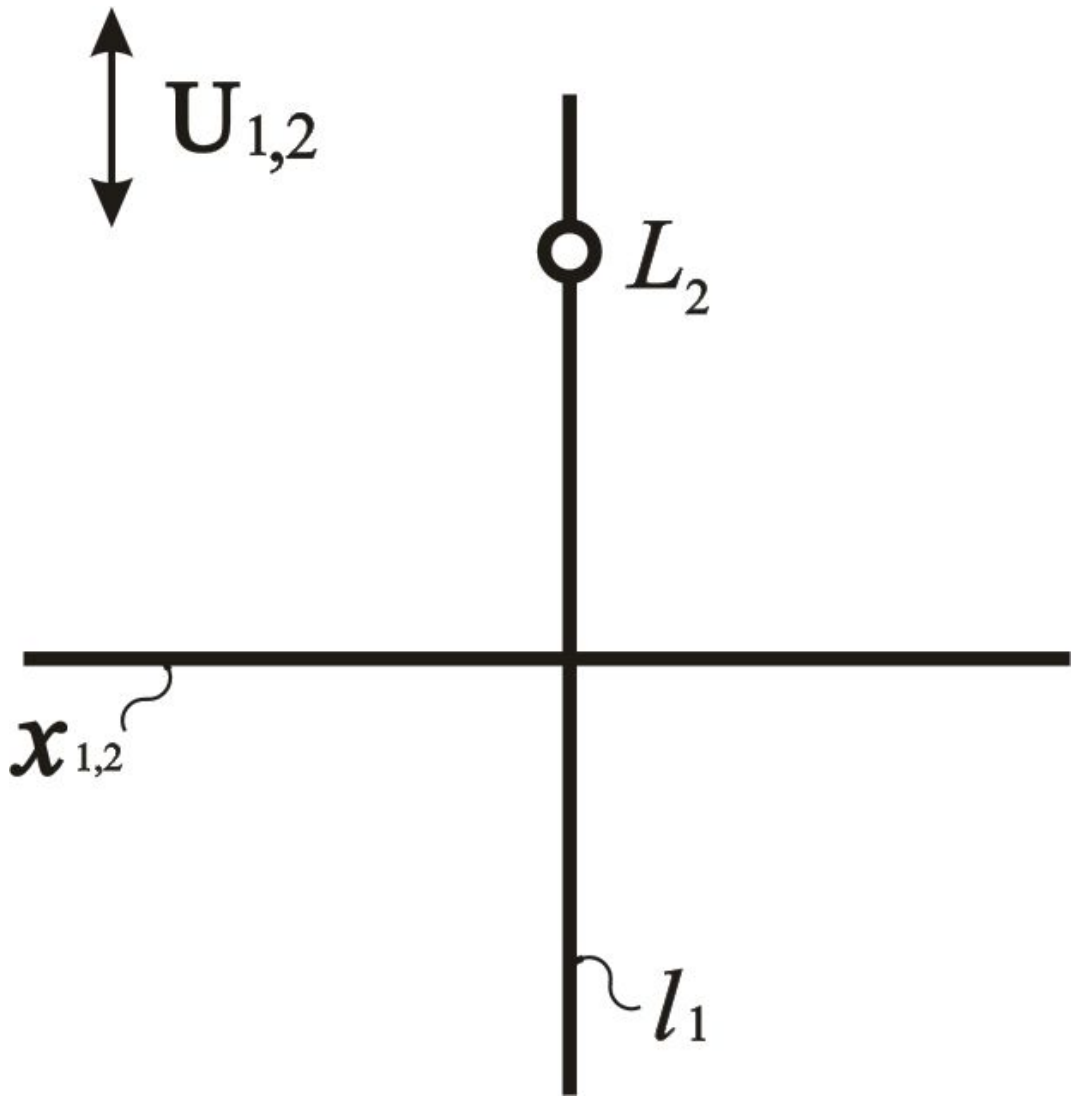

$U_{1,2}$
A_2
B_2
l_2
$x_{1,2}$
B_1
A_1
l_1

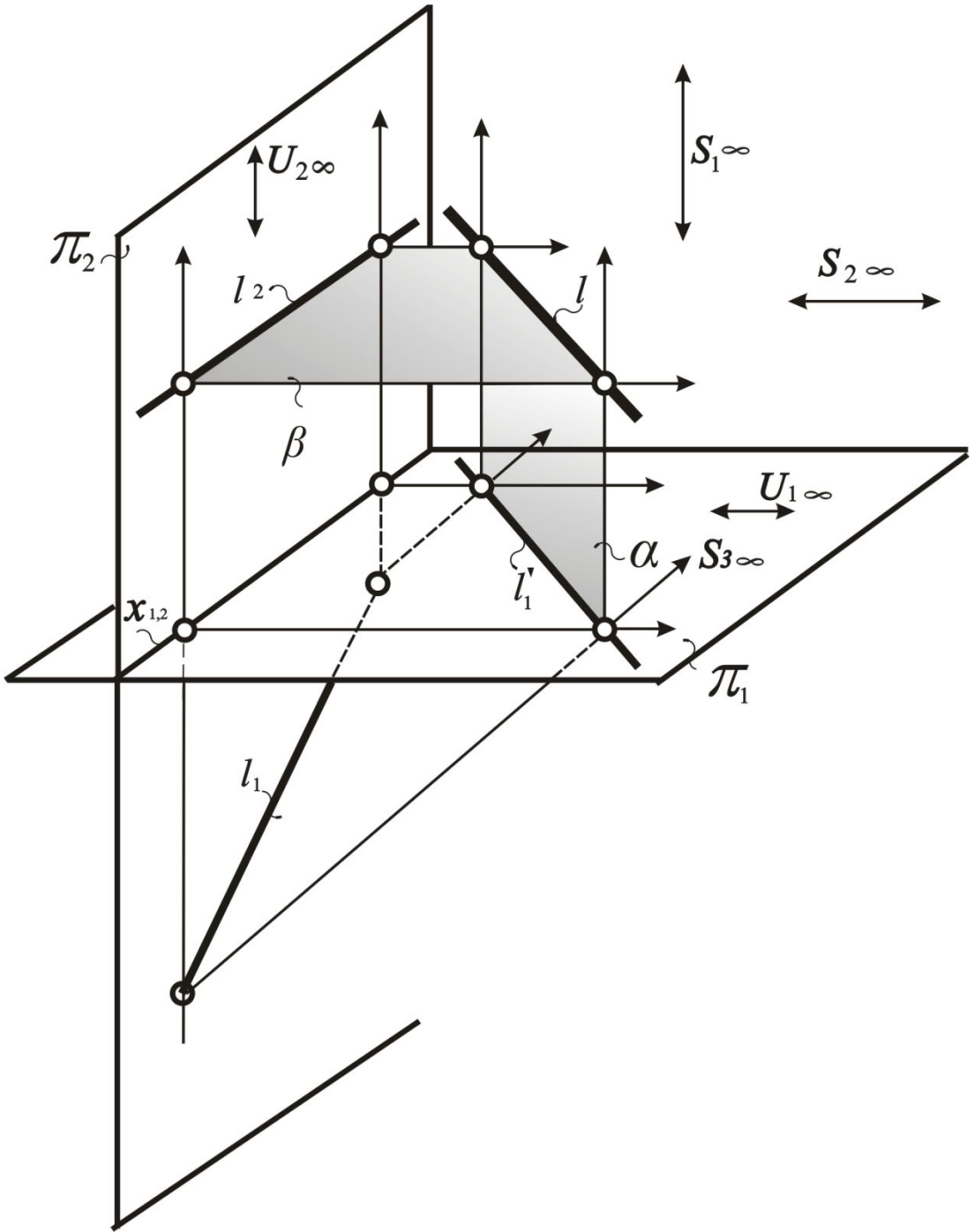

π_2
U_2
S_1
l_2
u
l
S_2
$x_{1,2}$
β
L_1
U_1
π_1
U


$S_1\infty$
$U_2\infty$
l
π_2
$S_2\infty$
l_2
S_3
$U_1\infty$
$x_{1,2}$
β
L'_1
π_1
L_1


$U_{1,2}$
l_2
$x_{1,2}$
L_1


$S_{1\infty}$
$U_{2\infty}$
π_2
L_2
$S_{2\infty}$
l
$S_{3\infty}$
l_1
$x_{1,2}$
$U_{1\infty}$
α
l_1'
π_1


U1,2
L2
x1,2
l1



$l \cup S_1 = \alpha;$

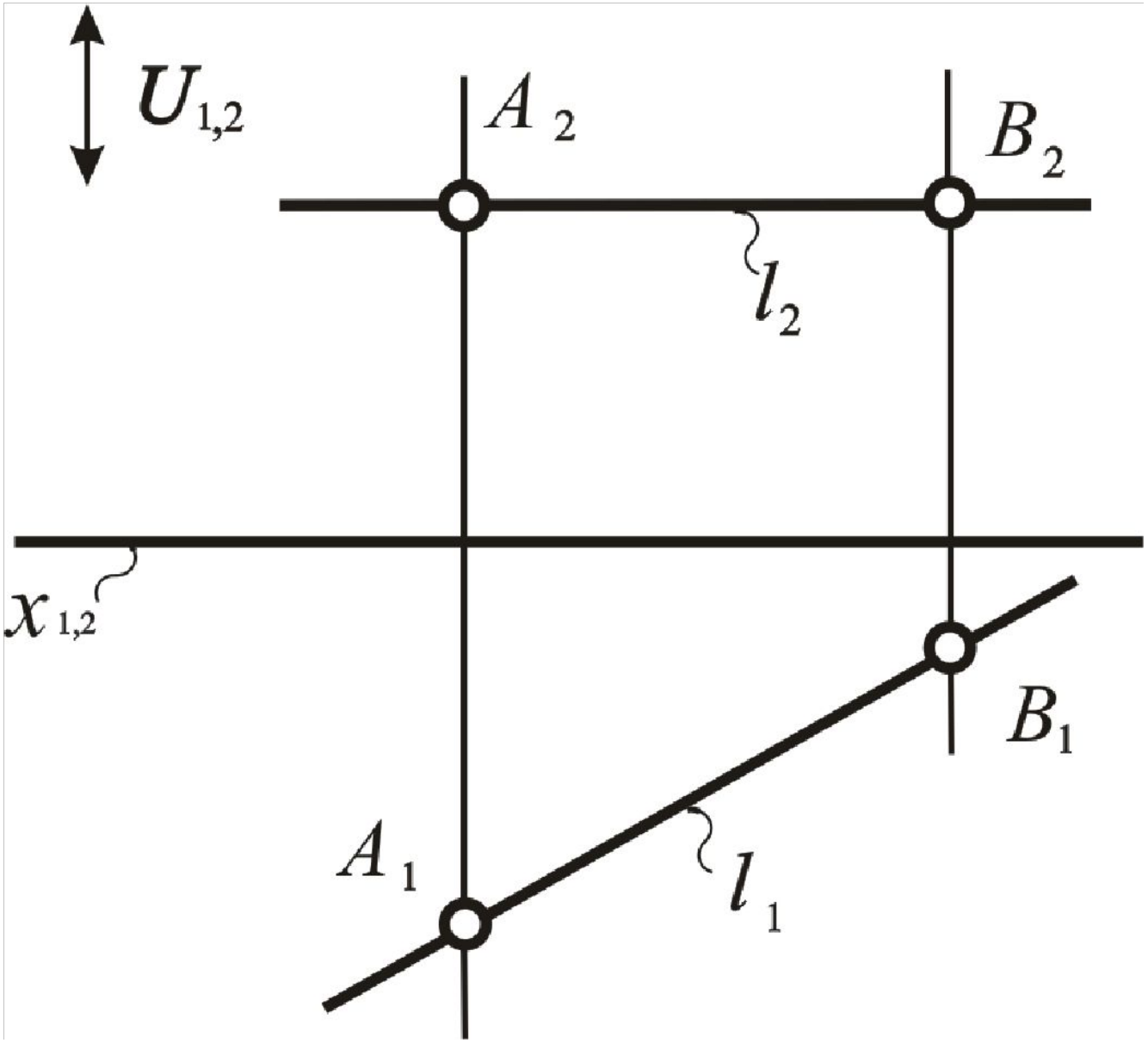
$l \cup S_2 = \beta \parallel \pi_1;$

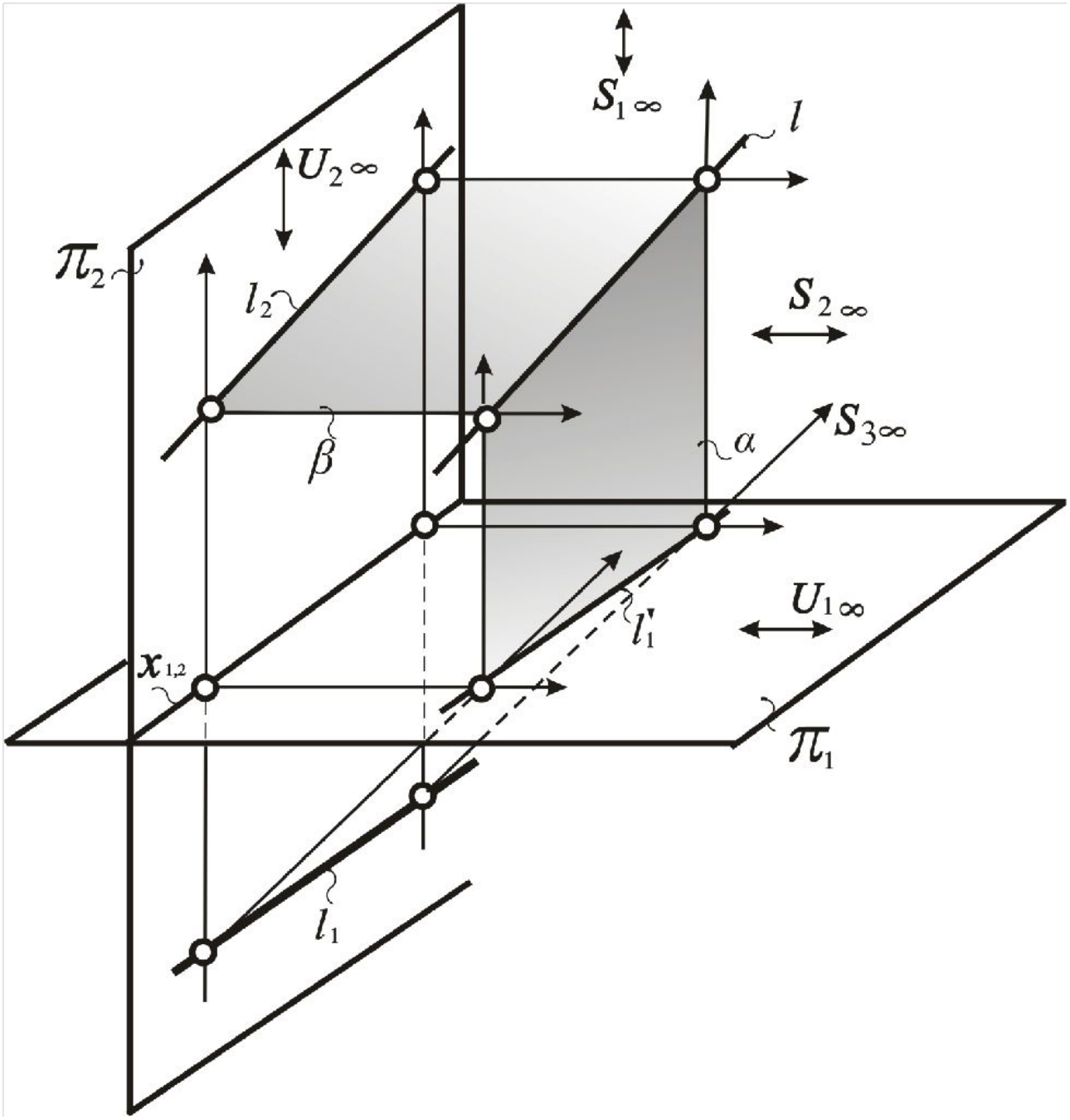
$\alpha \cap \pi_1 = l_1';$

$\beta \cap \pi_2 = l_2 \parallel x_{1,2};$

$l_1' \cup S_3 = \gamma;$

$\gamma \cap \pi_2 = l_1.$


$U_{1,2}$
A_2
B_2
l_2
$x_{1,2}$
B_1
A_1
l_1



$$l \cup S_1 = \alpha \parallel \pi_2;$$

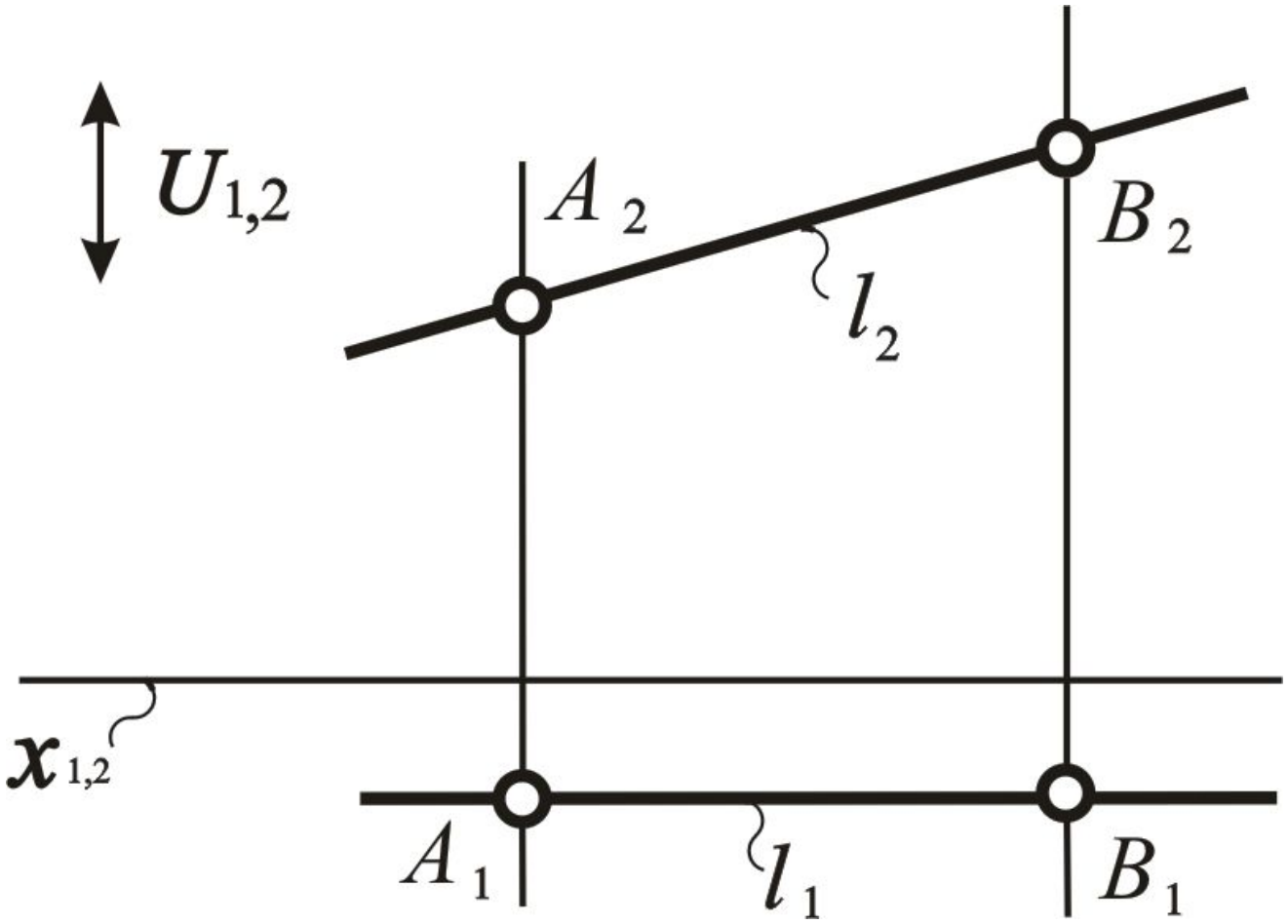
$$l \cup S_2 = \beta;$$

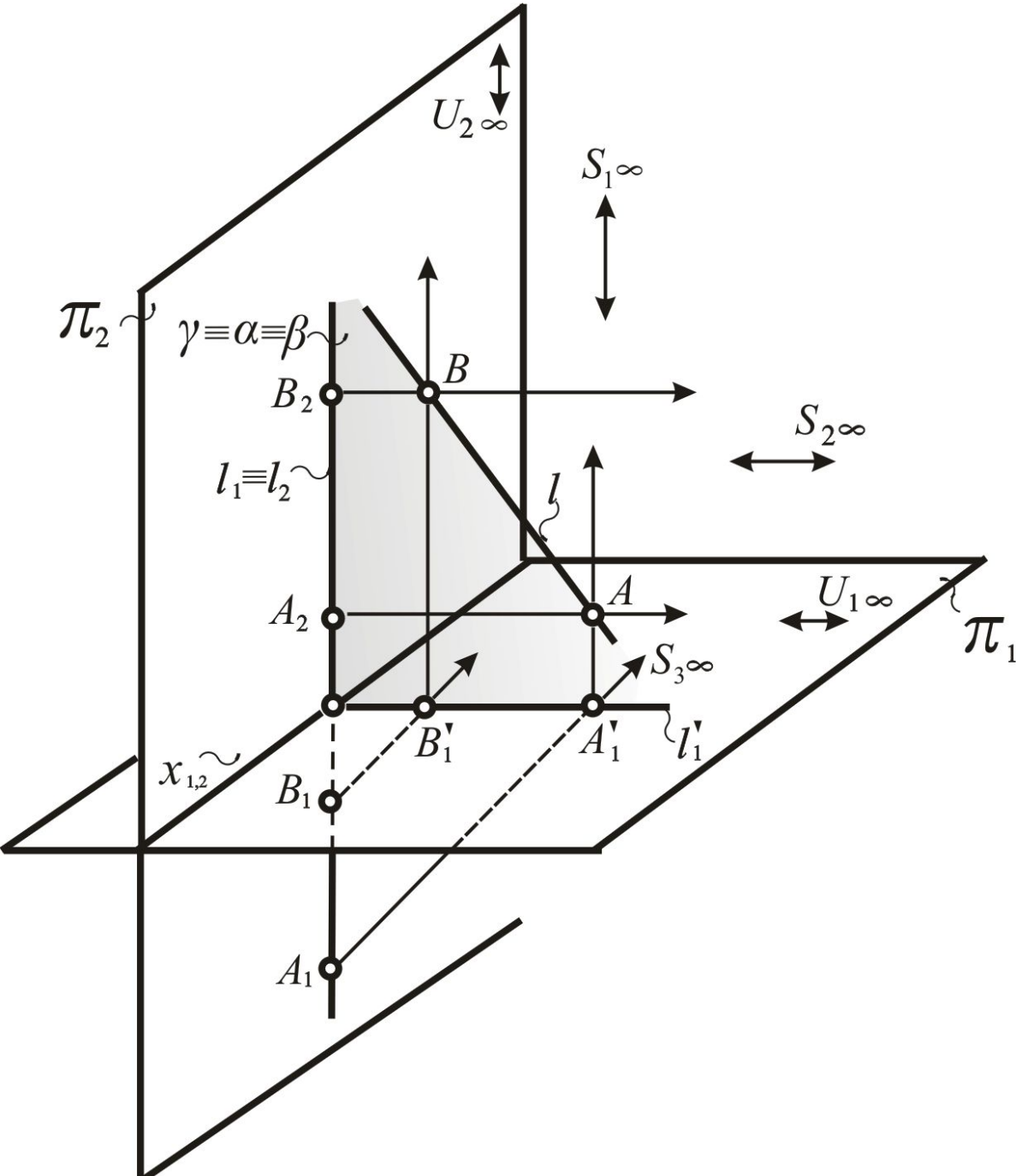
$$\alpha \cap \pi_1 = l_1';$$

$$\beta \cap \pi_2 = l_2;$$

$$l_1' \cup S_3 = \gamma;$$

$$\gamma \cap \pi_2 = l_1 \parallel x_{1,2}.$$


$U_{1,2}$
A_2
B_2
l_2
$x_{1,2}$
A_1
l_1
B_1



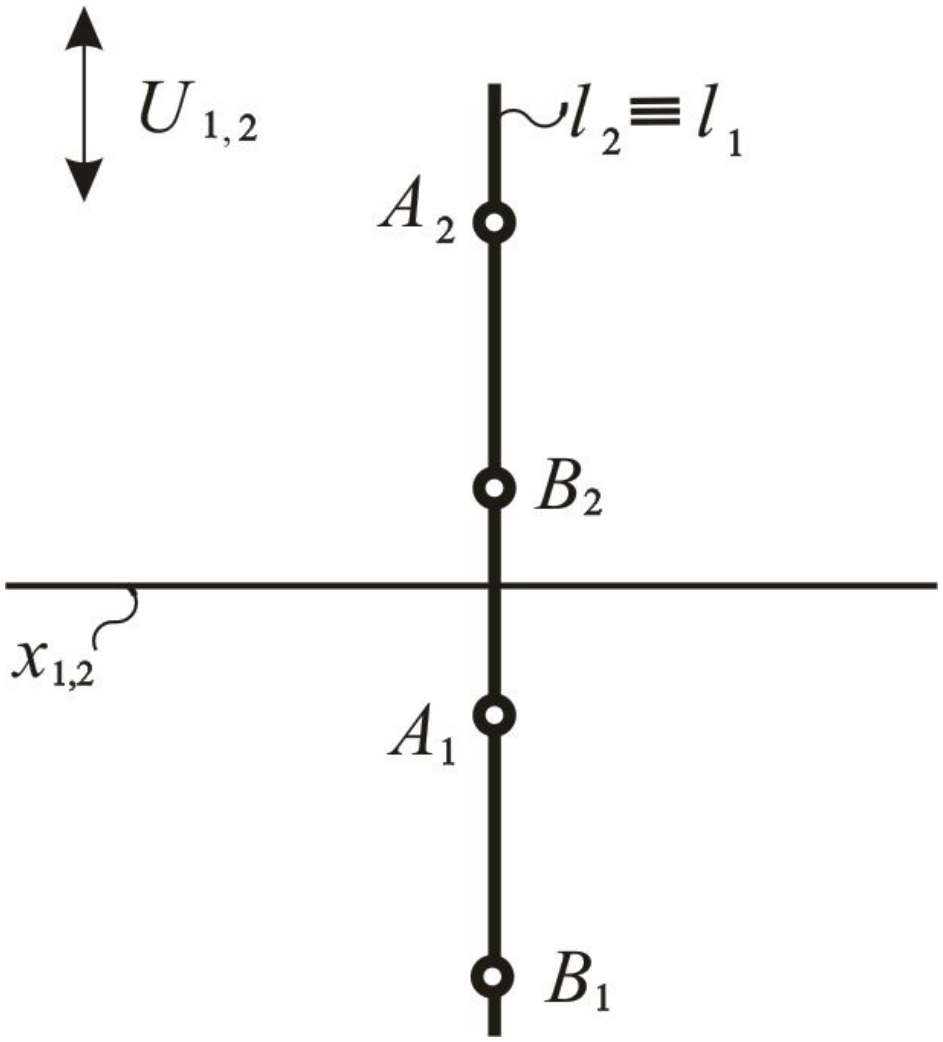
$$l \cup S_1 \cup S_2 = \alpha \equiv \beta;$$

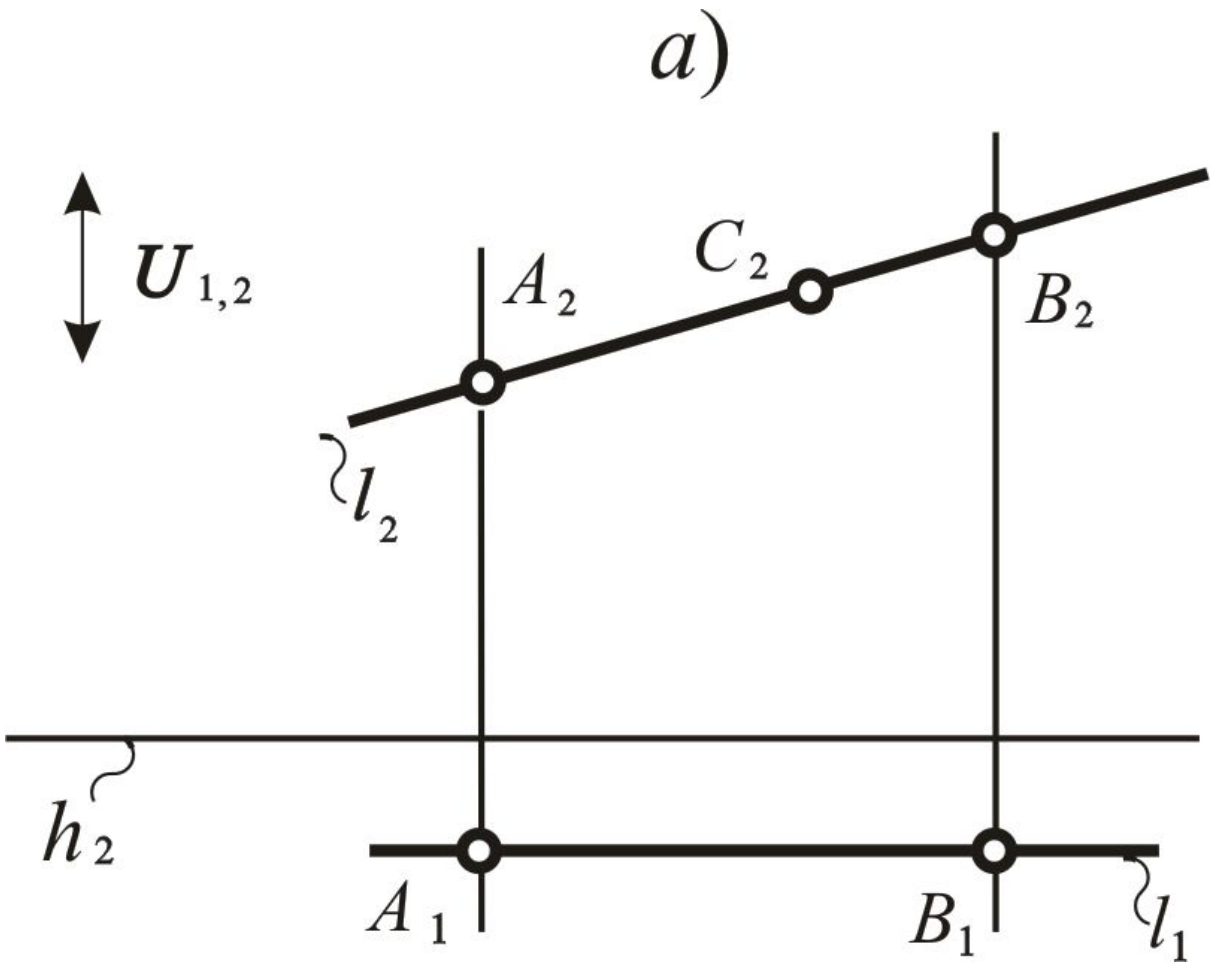
$$\alpha \equiv \beta \cap \pi_1 = l_1';$$

$$\alpha \equiv \beta \cap \pi_2 = l_2;$$

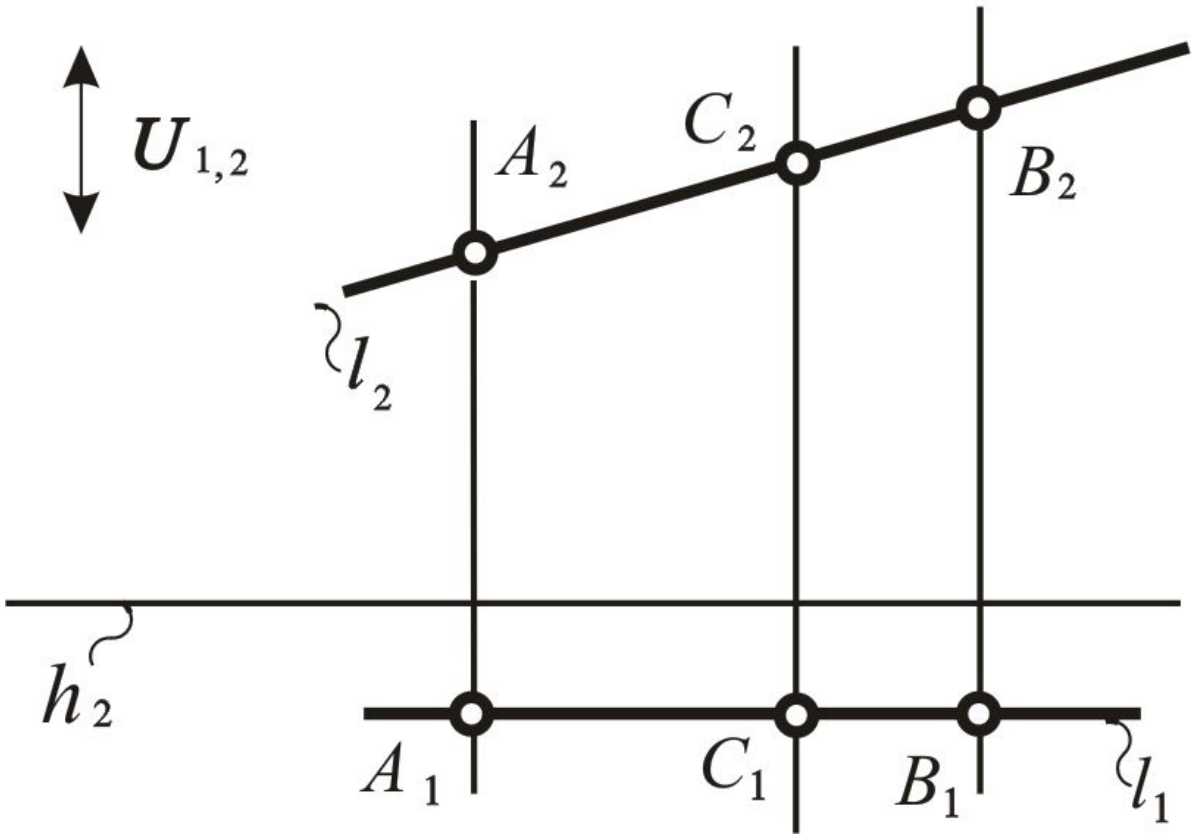
$$l_1' \cup S_3 = \gamma \equiv \alpha \equiv \beta;$$

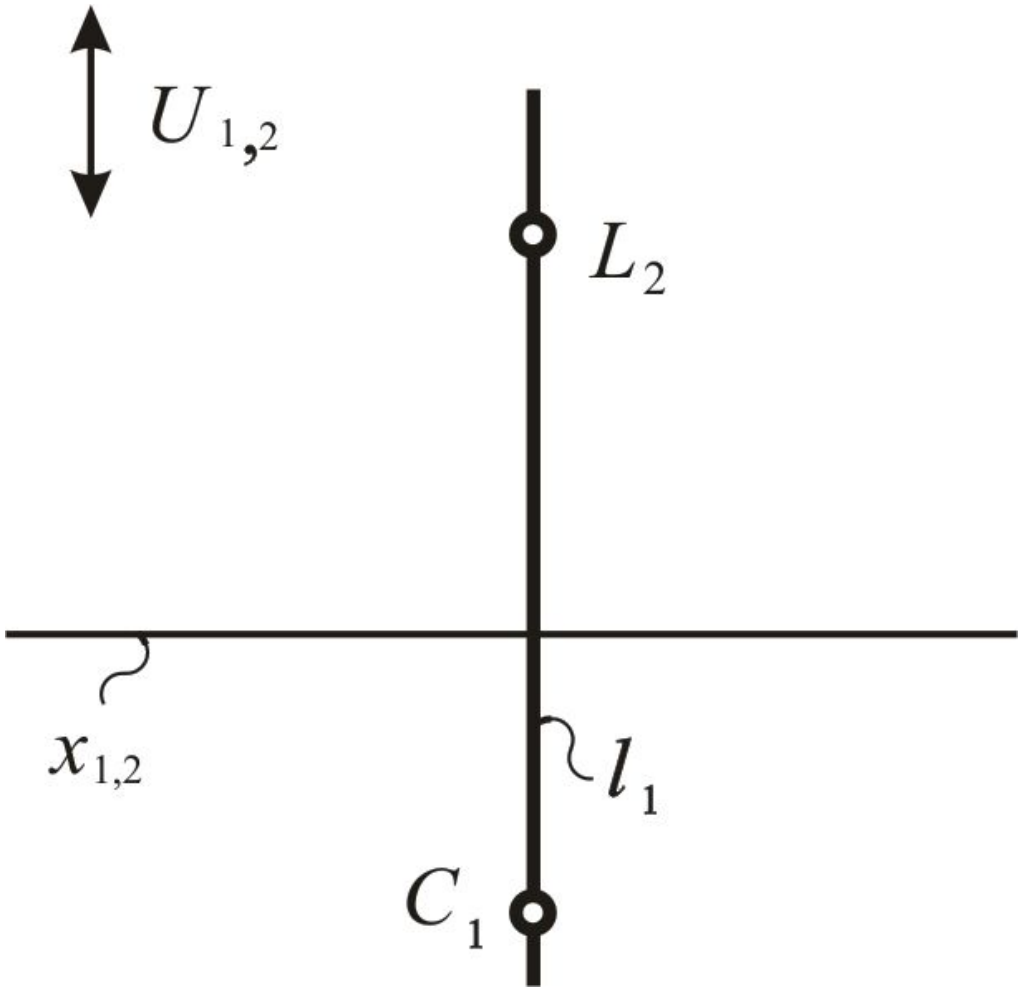
$$\gamma \cap \pi_2 = l_1 \equiv l_2.$$

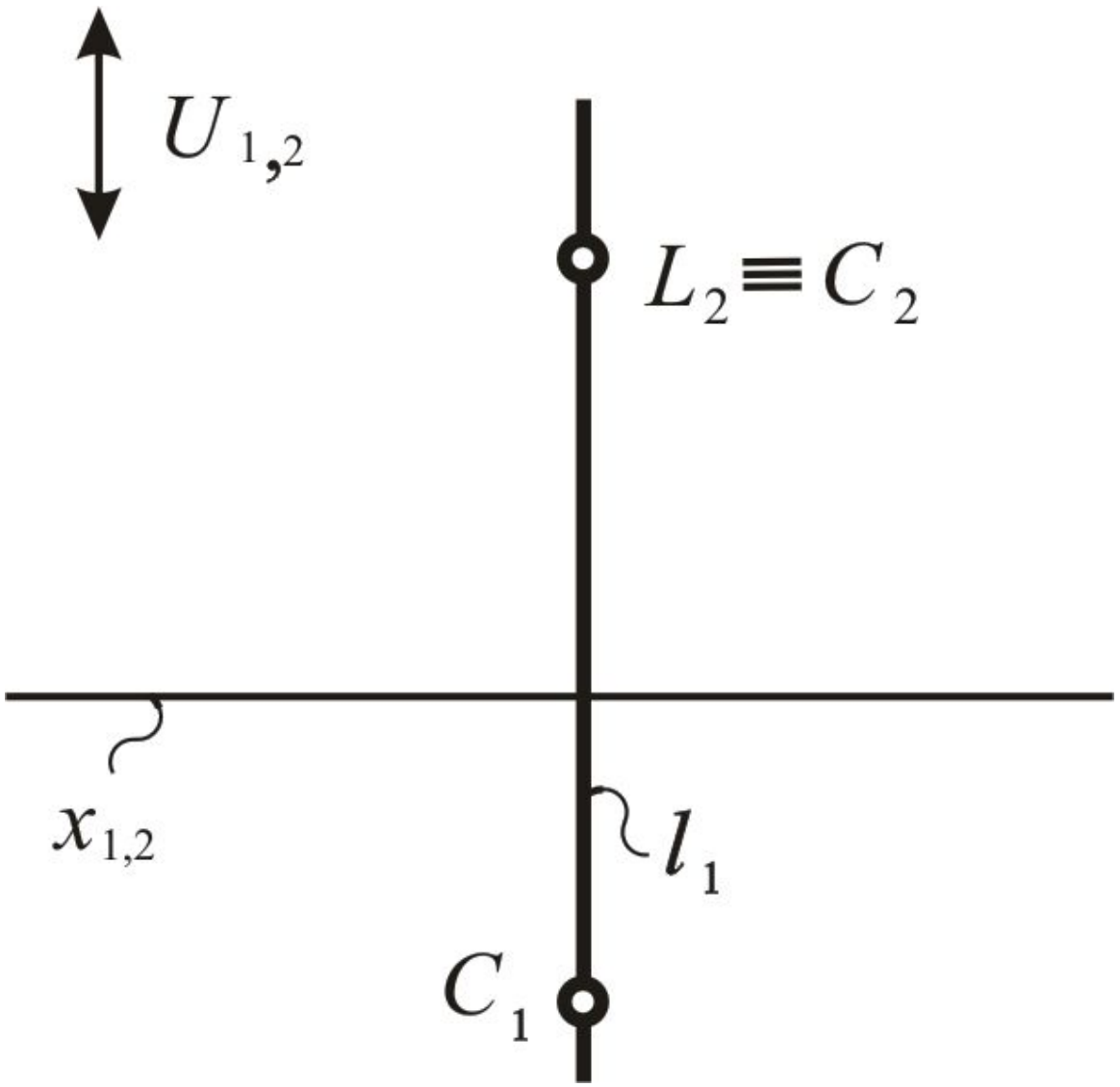

$U_{1,2}$
$l_2 \equiv l_1$
A_2
B_2
$x_{1,2}$
A_1
B_1

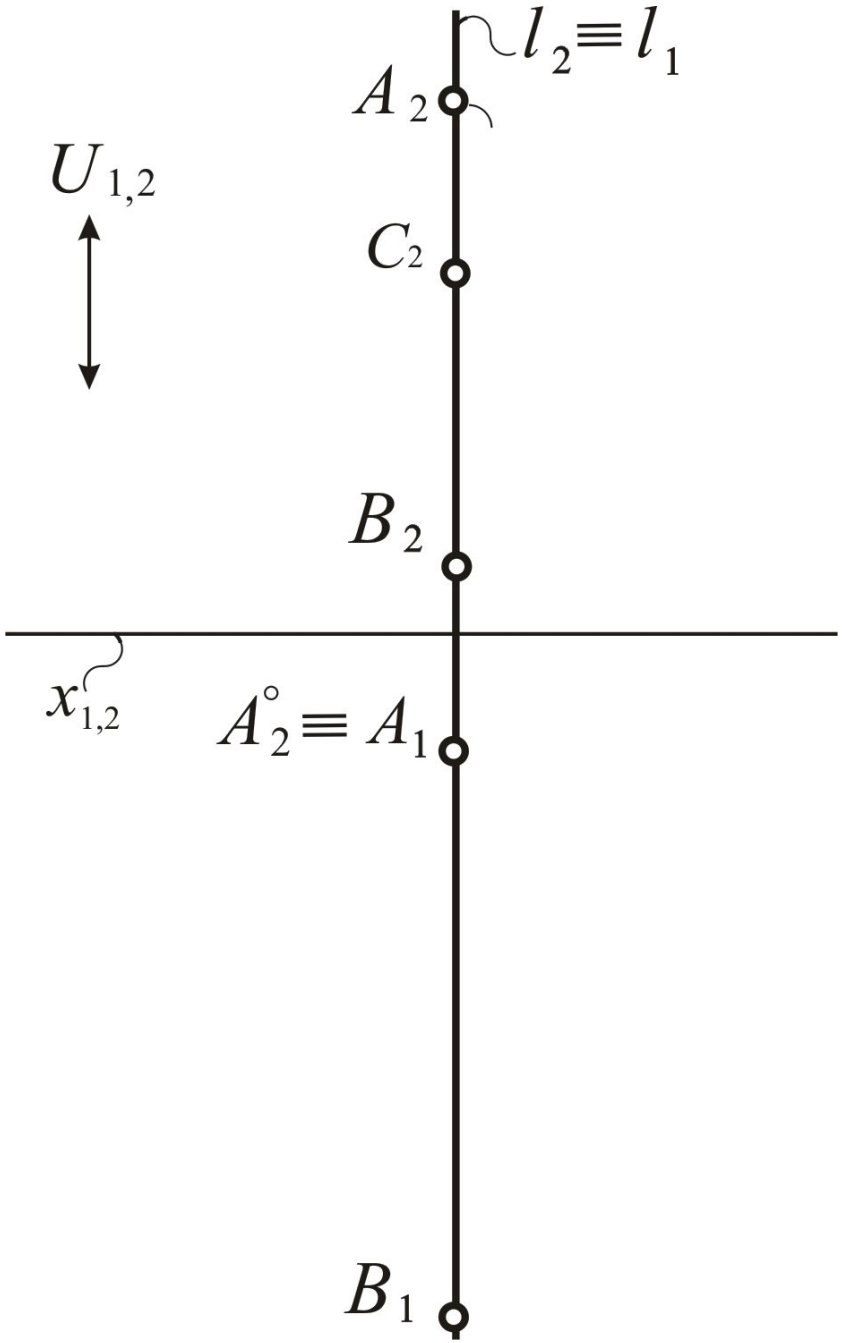

a)
U 1,2
A 2
C 2
B 2
l 2
h 2
A 1
B 1
l 1

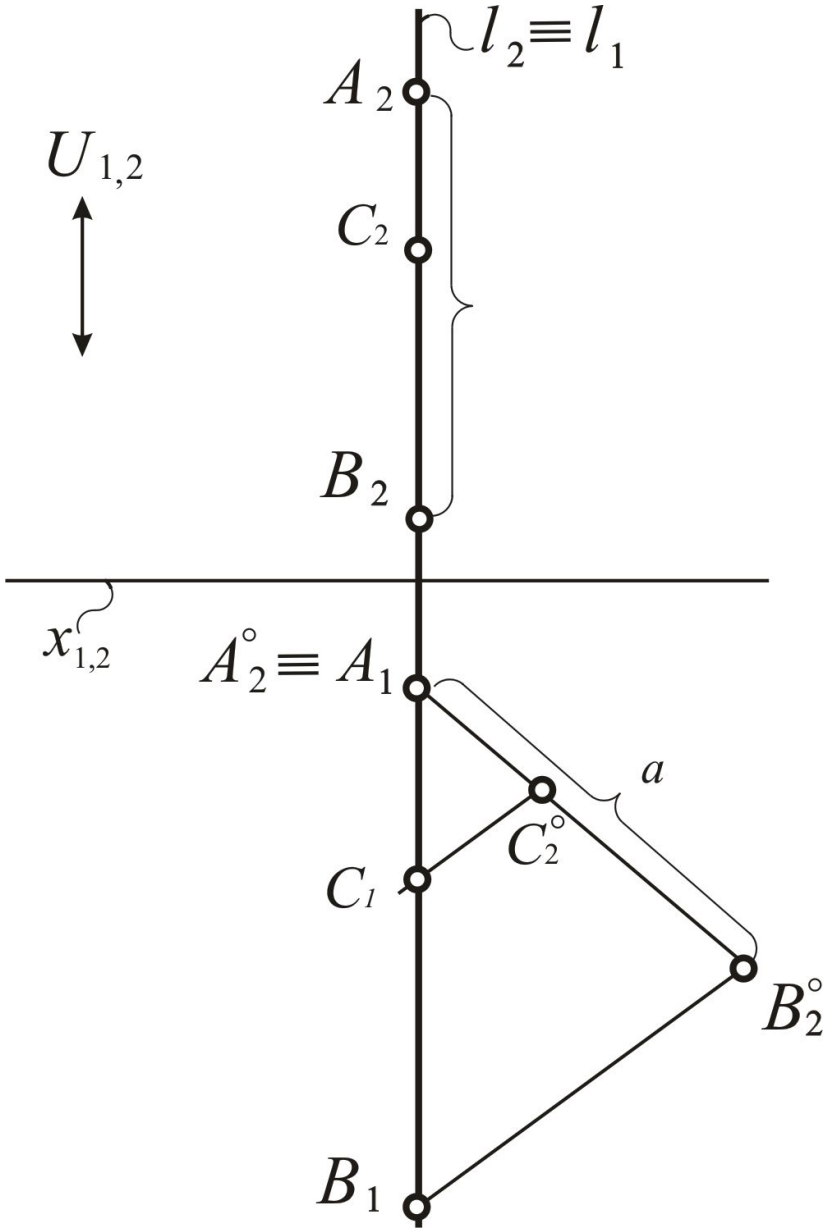
б)

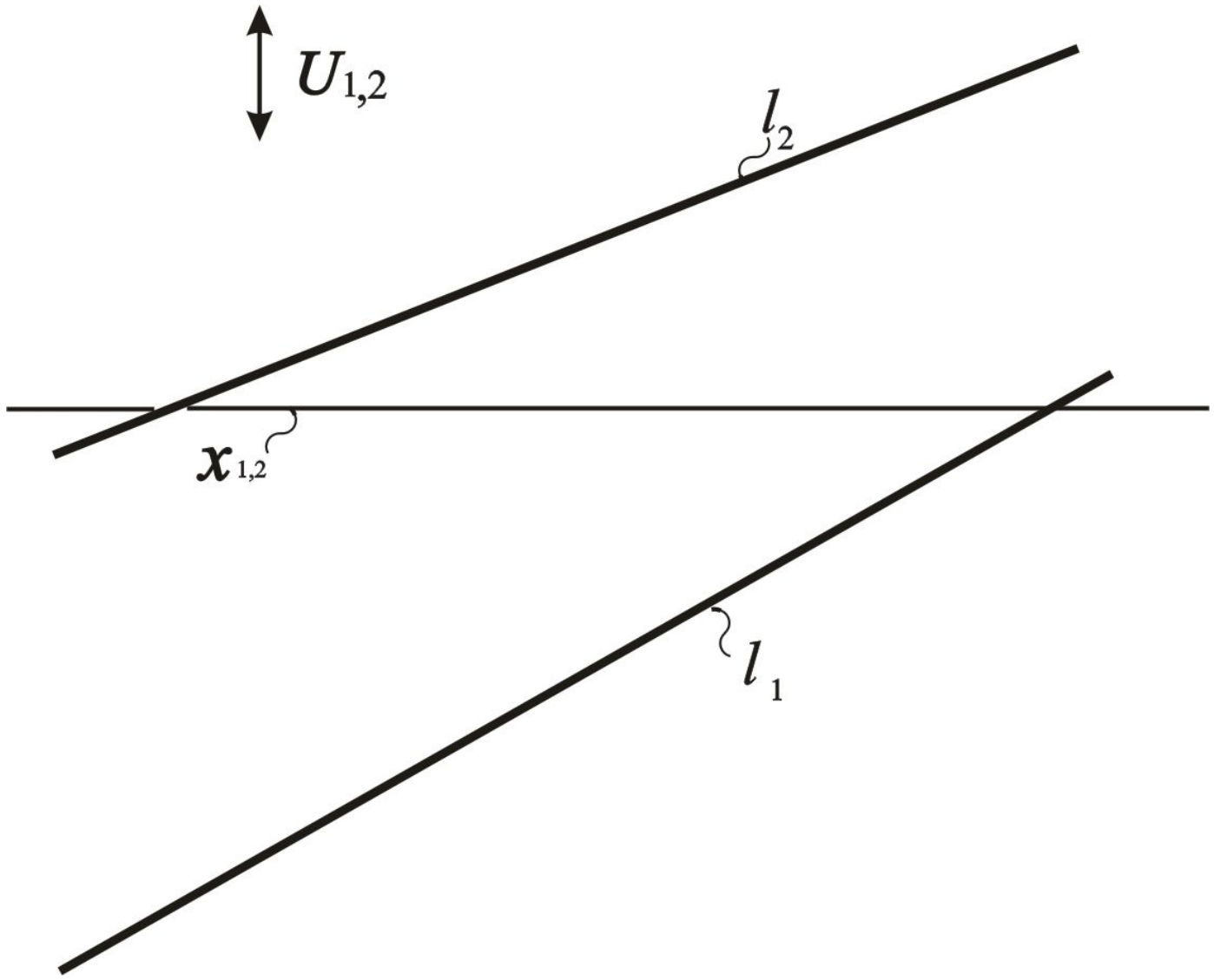


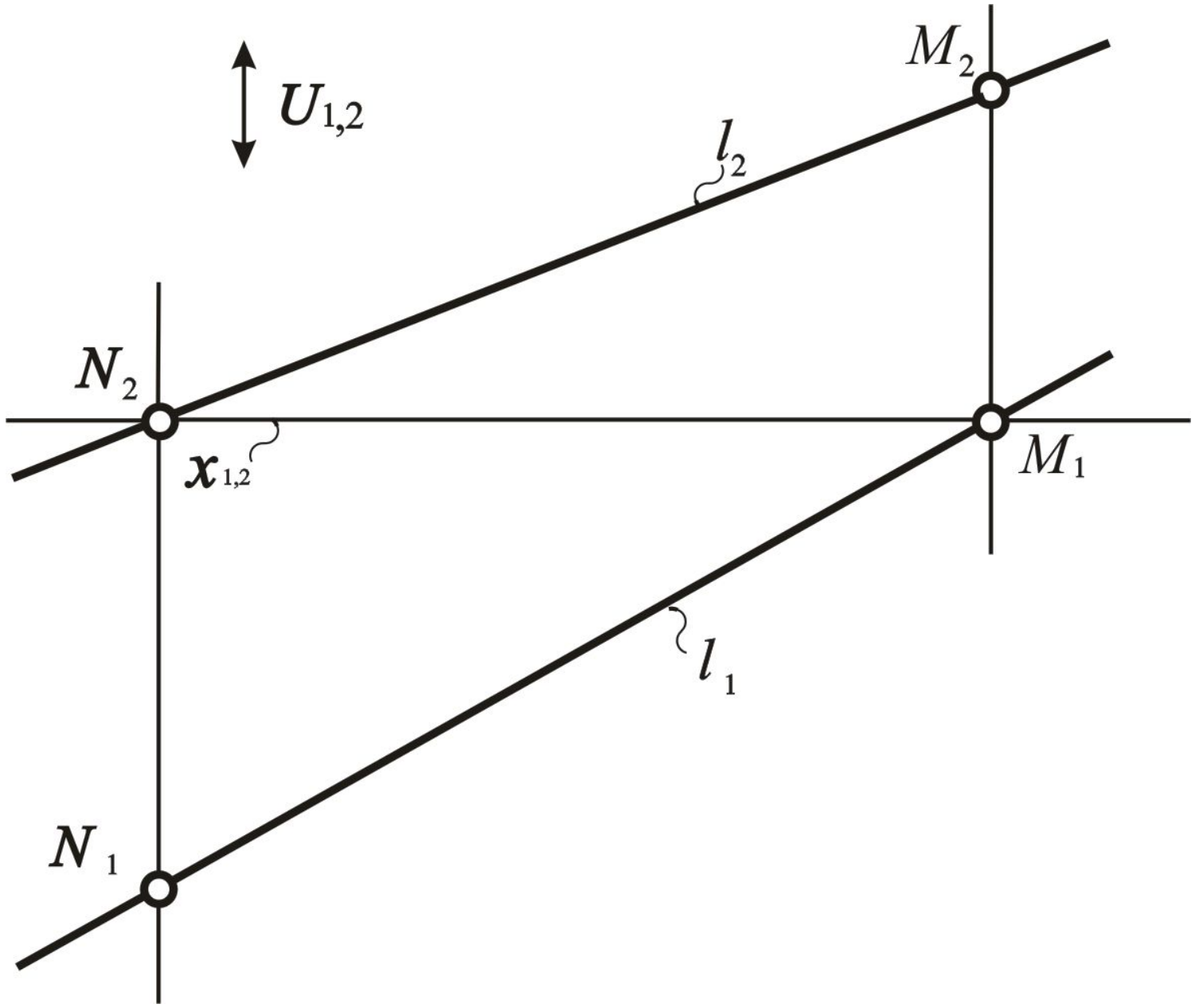

$U_{1,2}$
L_2
$x_{1,2}$
l_1
C_1


$U_{1,2}$
$L_2 \equiv C_2$
$x_{1,2}$
l_1
C_1


$l_2 \equiv l_1$
A_2
$U_{1,2}$
C_2
B_2
$x_{1,2}$
$A_2^\circ \equiv A_1$
B_1


$l_2 \equiv l_1$
A_2
$U_{1,2}$
C_2
B_2
$x_{1,2}$
$A_2^\circ \equiv A_1$
a
C_2°
C_1
B_2°
B_1


$U_{1,2}$
l_2
$x_{1,2}$
l_1


$U_{1,2}$
M_2
l_2
N_2
$x_{1,2}$
M_1
l_1
N_1