



Department of Physics and Astronomy "Galileo Galilei"

# **EMERGENCY MANAGEMENT MANUAL**

2023 EDITION

# Buildings by:

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We bring to the attention of all staff this appropriately updated manual, which gathers information regarding the actions to be taken in case of an emergency. Although each situation is different from the others, there are common aspects to all types of emergencies, from simpler ones to more complex ones that involve the total evacuation of workplaces. Even a small incident can easily escalate if the fundamental criteria for emergency management and the behaviors to avoid panic are not known. It is therefore advisable that anyone authorized to access the Department keeps in mind the simple notions outlined in this manual, which will be verified through specific exercises arranged periodically. No emergency plan, no evacuation of workers from the places where an incident occurs, whether significant or of minor importance, can ever succeed without the active participation of the workers.

In inviting you once again to carefully read the following, we strongly emphasize the need for productive and continuous collaboration among all personnel in the field of Prevention and Protection.

Head of Department Prof. Flavio Seno Director of the INFN Section *Prof. Roberto Carlin* 

# **PREMISE**

A situation of danger, an event, or an unforeseen circumstance constitutes an emergency. The causes of the emergency can be internal or external to the building.

An emergency necessitates the implementation of reactive measures aimed at reducing potential damage and ensuring the safety of individuals. It requires workers and guests to be attentive and aware that safety limits are about to be exceeded, prompting the need to take action to prevent the spread of harm.

The University of Padua and INFN - Padua Section have designated and trained workers responsible for implementing fire prevention, firefighting, and emergency management measures during regular business hours. They have also developed a scheduled action plan that enables the adoption of appropriate procedures to address unforeseen events with minimal harm to oneself and others.

All employees, guests, and visitors of the University are required to take appropriate precautions regarding safety and hygiene in the workplace, with the goal of preventing accidents. They are also obligated to promptly report the onset of emergencies and actively cooperate with emergency teams to contain potential damages.

## **EMERGENCY MANUAL**

#### **OBJECTIVES OF THE MANUAL**

This internal manual serves the following purposes:

- Provide University staff and all visitors with information on emergency behavior norms and evacuation procedures.
- Define methods for addressing emergencies from their initial occurrence, containing their effects, and swiftly restoring the situation to normal operation conditions.
- Plan necessary actions to protect individuals.
- Optimize the protection of University assets and facilities, as well as those affiliated with the institution.

#### CONTENTS

- Procedures to be implemented in the event of specific emergencies.
- Procedures for evacuating the workplace.
- Instructions for requesting the intervention of Fire Brigade,
  Medical Emergency, or other institutions and providing necessary information upon their arrival.

#### **EMERGENCY PROCEDURES**

Emergency procedures are designed to outline the behaviors that must be adopted by all individuals present in the building in the event of an emergency situation. They are the subject of training and education through exercises and simulations. It is recommended that everyone carefully and thoroughly reads the procedures, identifying and memorizing the relevant sections based on their roles. Emergency management procedures vary depending on the time of the emergency, the cause of the emergency, or the severity of the event.

Anyone who frequents the building in any capacity is required to be familiar with and adhere to the behavior rules in case of an emergency.

# WHAT TO DO IN CASE OF EMERGENCY

Anyone who observes an abnormal or dangerous event (e.g., fire, accident, injury, breakdown) and is not absolutely certain of being able to handle it successfully must follow the following procedures:

# **During the opening hours of the Department:**

Contact the internal emergency number: 7324

Specifying exactly:

- Personal details
- Contact phone number
- The exact location of the emergency (floor, room number, building)
- The nature of the emergency
- The presence of any injured and/or trapped individuals

The emergency number can also be called from a mobile phone or from outside the Department by dialing the number: +39 049 827 7324

# During closing hours and during periods when the Department is closed:

Contact the emergency numbers:

Emergency Response Facility	Telephone
FIRST AID	118
FIRE BRIGADE	115
POLICE	113
CARABINIERI	112

In addition, you must alert the internal services by calling the number **7324** or directly the number of the on-call number:

Availability of internal services	Telephone		
Technical Availability	049 827 3897		
Availability of General Services	049 827 3898		

You can take action to try to contain or reduce the danger only after carefully evaluating your operational skills and taking care that your safety is guaranteed first of all.

However, it is essential to remember that after reporting the emergency it is necessary to leave the building, head towards the entrance gate, wait for the emergency services called and give them clear indications: where the fire is located, where the injured person is, what is the type of alarm, etc.

#### **EVACUATION**

#### **ALARM**

The alarm is given by means of a special siren with a prolonged sound followed by a voice alert in Italian and English.

At the first notice <u>all</u> suspend their activities, leave their workplace and go outside the building <u>at the safe meeting place</u> identified at the exits of:

via Marzolo	via Vesalio	via Paolotti	via Belzoni	via Loredan

and then converge towards the area in front of the Department in Via Marzolo.

Everyone must already be clear about the shortest way to reach the safe meeting place from their usual place of work. The route must be done in an orderly manner, without rushing, without causing panic.

#### **EVACUATION PROCEDURE**

When leaving the workplace:

1. the area must be left without delay following the paths indicated







with the signs in example in figure 1; Figure 1

- DO NOT use elevators or freight elevators;
- do not carry bulky, bulky or heavy objects with you;
- leave the equipment safely (close any taps, close gas cylinders, turn off any electrical equipment, etc.);
- The displacement of disabled or struggling colleagues must necessarily be helped by safeguarding oneself first and foremost. If you are unable to rescue them, it is important to go out and report their presence;
- leave all access doors to smoke-proof protected stairs closed after use;
- the lights on must be left on;
- close the door of the room from which you leave, but not locked;
- quickly exit from the emergency exits by following the appropriate signs;
- DO NOT go back for any reason;
- Once you have exited, do not obstruct the entrances to the building and do not obstruct the rescue.

Reach the safe outdoor collection points indicated with signs, for example in figure 2; Stay together and check for the absence of colleagues



Figure 2

#### **END OF THE EMERGENCY**

The return to the workplace and the resumption of activities is allowed **only after** the First Intervention Team has declared the end of the emergency and the Emergency Coordinator has decreed the resumption of activities.

# EVACUATION PROCEDURES FOR CLASSROOMS, STUDENT SPACES and LABORATORIES

At the evacuation signal, the Teacher or Supervisor:

- 1. immediately gives instructions for the orderly abandonment of the premises;
- 2. provides for the interception of methane, water and electricity supplies, by intervening on the closing devices (valves, switches);
- 3. any sources of radiation must be stored in the appropriate safety deposit boxes or carried with you; if they are inconvenient to reach, just report their presence once you leave
- 4. arranges for help to be given to any injured or persons in difficulty;
- 5. coordinates operations for an orderly exodus, recalling the obligation to follow the route of the emergency exit routes to go outside the building to the assembly point;
- 6. makes sure that all the people have left the room and leaves it in turn by locking the door **unlocked**;

He goes to the collection point following the emergency exit routes and remains available.

#### **EVACUATION PROCEDURES FOR OFFICES OR STUDIOS**

At the evacuation signal, the staff:

- 1. ensures that any injured persons, or persons in difficulty, are helped to move away from the danger zone;
- 2. ensures that all persons have left the premises;
- 3. He leaves the room neatly, locking the door unlocked.
- 4. Go outside the building (to the pick-up point) following the route of the emergency exit routes.

#### PERIODIC EXERCISES

In accordance with the provisions of Annex I of the Ministerial Decree of 02 September 2021, workers must participate in the exercises to put into practice the exodus and first aid procedures.

Periodic simulations are carried out with increasing levels of involvement, which predict the real mobility of all the people present in the building. On the way to the safe meeting place, try to:

- Identify what the alarm buttons are
- Identify the location of extinguishing equipment

At the end of the test, we ask you to report any difficulties you encounter, such as:

- · the alarm signal is too weak,
- the presence of obstacles along escape routes,
- Anything you think is useful to report

The evacuation dress rehearsal will help us highlight any deficiencies that need to be remedied. Based on the experience gained with the simulations, the contingency plan will be constantly updated.

### **TYPES OF EMERGENCIES**

During specific events, due to causes inside or outside the building, anyone present must follow the general instructions below:

#### **GENERAL RULES**

- Stay calm.
- Comply with any instructions given
- Make yourself available to emergency responders to inform them of any specific risks.
- Do not use elevators.

#### IN CASE OF FIRE

- intervene with fire extinguishers ONLY if you know how to use them;
- fires involving gas appliances or pipes can be extinguished by first closing the shut-off valves;
- DO NOT USE hydrants (reserved for fire brigades);
- do not open hot doors;
- leave the room as quickly as possible in the event of an evacuation;
- avoid escaping by going up to the upper floors because the smoke goes upwards;
- If the escape routes are filled with smoke:
  - cover your nose and mouth with handkerchiefs, preferably moistened;
  - proceed to the nearest emergency exit, remaining bent as much as possible, orient yourself through contact with the walls;
- in the event that the path leading to the emergency exits is blocked by flames and smoke, it is essential to go to safe places such as bathrooms or with the presence of water and little combustible material;
- In the event that it is not possible to leave the environment in which you are, you must:
  - 1. close the access door completely;
  - 2. occlude the cracks flush with the floor with clothing or other equipment;
  - 3. if possible, keep the inside of the door moist by applying a previously wet garment;
  - 4. move furniture (wardrobes, tables, chairs, etc.) away from the door:
  - 5. if you wear acrylic and synthetic fabrics (nylon, polyester) it is preferable to remove them;
  - 6. Report your presence to the rescuers.
- When a person's clothes catch fire, you have to:
  - 1. prevent it from running;

- 2. lay it on the ground;
- 3. extinguish the flames by wrapping it in blankets or non-flammable clothing;
- 4. **do not** use extinguishing substances, fire extinguishers, water: the cooling or chemical/physical effect of these substances can damage more than burns.

#### IN CASE OF ACCIDENTS, INJURIES OR ILLNESS

Anyone who detects an accident, illness or injury must immediately notify the first aid personnel on the internal emergency number **7324**.

While waiting for their intervention, you must NOT:

- Gather around the injured person
- take rescue measures if you are not authorized to do so
- Move the injured person from the place or position where they are

### IN THE EVENT OF AN EARTHQUAKE

- Don't rush outside;
- be located near the most "solid" points of the structure such as loadbearing walls, architraves, doorways and corners;
- keep away from anything that may fall on you, such as windows, helving, flying electrical systems;
- find shelter under desks and tables;
- After the end of the quake, when leaving the building and leaving:
  - 1. move carefully, proceed keeping against the walls;
  - test floors, stairs and landings, placing only one foot on them first;
- DO NOT USE lighters, matches or other open flames, gas leaks are possible;
- once outside the building, move away and try to move to large squares, away from tall trees and overhead power lines;

 if you become trapped, try to report your presence at regular intervals;

#### IN THE EVENT OF FLOODING OR FLOODING

In the event of a flood:

- move calmly from the lower floors to the higher ones, but not using the elevators;
- **Do** not try to cross environments affected by water, if you do not know perfectly the place, the existence in the environment of wells, ditches and depressions;
- **Never** leave the building when the surrounding area is completely flooded, DANGER! drag due to the speed of the waters;
- wait for the intervention of the rescuers, indicating the position and the places where you stop;
- if possible, equip yourself with objects whose buoyancy is certain and effective (wooden boards, hermetically sealed plastic containers, bottles, polystyrene);
- Avoid staying in environments with the presence of electrical equipment, especially if affected by flood water.

#### IN CASE OF TORNADOES

At the first signs of the formation of a whirlwind, try to avoid staying in open areas.

#### If outdoors:

- Move away from tall trees
- take shelter in ditches or potholes if present in the surrounding area
- seek shelter in buildings of solid construction, and wait for the event to be over

If you are indoors, stay away from windows, doors or any other area where glass, furniture, etc. may fall.

Before leaving a building, make sure that the external environment and escape routes are free of suspended or about to fall elements.

# IN THE EVENT OF A GAS LEAK OR SPILL OF HAZARDOUS SUBSTANCES

In the event of a gas leak or in the presence of odours that suggest the presence of hazardous substances, it is necessary to:

- do not turn on or off electrical appliances in the place invaded by gas but preferably turn off the electrical power from the electrical panel;
- avoid the formation of sparks and the ignition of open flames;
- ventilate the room by opening the windows, but taking care to keep the door closed and move away;
- breathe calmly and possibly place a handkerchief, preferably damp, between your mouth, nose and the environment;
- Keep as far away as possible from the source of emission of toxic and harmful gases and vapours.

### IN CASE OF TERRORIST ACTS, ARMED THREAT, INSANE PRESENCE

If the event is outside the building or office:

- comply with the instructions given through the sound and/or sound alarm system;
- do not look out the windows or door to snoop;
- Stay in your seat and bow your head if the threat is direct
- offer the least surface area to acts of physical offense;
- not to oppose the actions of the attacker/madman with their own behavior;
- to remain calm and in control of one's actions for offenses received and not to mock the unbalanced behavior of the madman;
- any action or movement must be performed naturally and calmly;
  not to perform any action that may appear stealthy, any movement
  that may appear to be an escape or a defensive reaction;

- if the threat is not direct and you are certain of the active counteraction of the Police Forces, sit or lie down on the ground and wait for further instructions:
- move away from the portions of the room aligned with external windows and with

doors or that are underneath suspended objects (chandeliers, paintings, speakers) and concentrate in safer areas;

- · stay calm and don't condition the behavior of others with yelling;
- to encourage and assist colleagues in an obvious state of increased agitation.

#### IN CASE OF EXPLOSIVE ORDNANCE WARNING

Anyone who receives a report of the presence of an explosive device or detects its possible presence must give the alarm to the emergency numbers, according to the communication procedure already specified. Follow the instructions given through the audible and/or audible alarm system and the evacuation instructions provided by the Coordinator or emergency personnel.

# IN THE EVENT OF AN EMERGENCY IN THE USE OF RADIOACTIVE SUBSTANCES

In the event of emergencies involving radioactive material, the following must be notified immediately:

- The Director of the Department;
- The person in charge, responsible for the activity,
- The Radiation Protection Expert;
- The licensed physician.

There are two main types of emergencies in the use of radioactive substances:

#### RADIOACTIVE CONTAMINATION

In the event of a spill of radioactive material, it is necessary to:

- 1. limit the introduction of radioactive contaminants into the body by inhalation, ingestion, or contact;
- limit the spread of the contaminated area by adequately circumscribing it;

#### FIRE INVOLVING RADIOACTIVE MATERIAL

In the event of a fire involving radioactive material, rescuers may face the risk of external irradiation (the fire destroys the protective screens) and internal contamination (caused by the radionuclide which, in the form of aerosols, dust and vapour, falls off and contaminates the surrounding surfaces).

To reduce these eventualities, it is essential to store radioactive sources in shielded containers in repositories when not in use.

Anyone who detects a fire involving radioactive material or the premises in which it is stored, must immediately notify the Fire Brigade and the Qualified Expert.

It is recommended to leave the management of the intervention to the authorities in charge and to give them the necessary information.

Waiting for the Fire Brigade:

- remove materials and substances that could pose a danger to the spread of fire;
- turn off the service supply (compressed gas) and the power supply in the room involved in the fire;
- intervene if necessary at the beginning of a fire with the emergency means provided to protect the radioactive material;

• Minimize the use of water, to lower the temperature and reduce dust, use water mist to decrease the risk of atmospheric contamination.

#### **AFTER THE FIRE:**

- do not leave the control area without being decontaminated;
- go to the restricted area for the rapid control of surface contamination of clothing, material and exposed personnel; place contaminated clothing in strong, sealed plastic bags, without removing the mask during undressing operations;
- without the prior authorization of the Qualified Expert, no activity is allowed on the premises affected by the fire.

# **EMERGENCY TELEPHONE NUMBERS**

INTERNAL EMERGENCY NUMBER	7324
FIRST AID	118
FIRE BRIGADE	115
POLICE - CARABINIERI	113 e 112

The document was drafted by the Prevention and Protection Service of the INFN Section of Padua and by the Technical and General Services of the Department of Physics and Astronomy of the University of Padua.